

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

{ STAMPED . . . SIXPENCE.
 { UNSTAMPED . . FIVEPENCE.

Apply to Wm. Mitchell, 8, Austinfriars, Old Broad-street, London, E.C.

ROUND and FLAT ROPES of every description, suitable for mining operations or other purposes, **GALVANISED or UNGALVANISED, MANUFACTURED** upon the newest and most improved machinery, ensuring greater pliability, durability and strength; and is admitted by the principal coal proprietors to be far superior to any other kind of wire rope. The superiority of these ropes over hempen ones, in point of strength, pliability, and durability, is fully demonstrated by the following facts:

of these properties is carried on in their office upon the following principles, viz. (1) Accounts systematically and closely made up. (2) Statements in detail, and clear summaries of finance and expenditure. (3) Entire and impartial openness of books, reports, and documents, to all shareholders, for perusal or extract.

LAKE ONTARIO AND HUDSON RIVER RAILROAD.

STATE OF NEW YORK, UNITED STATES.
The share capital is \$1,250,000, in 50,000 shares, of \$25 each;
or \$250,000, reckoning the dollar at 4s. 2d.

DIRECTORS IN UNITED STATES.
ELISHA C. LITCHFIELD, New York.
LUCIEN D. COMAN, New York.
JOHN R. BRIGGS, New York.
SAMUEL J. BEALS, New York.
EDWIN C. HAMILTON, New York.
BENJAMIN BRANDRETH, New York.
LEROY M. WILEY, New York.

DIRECTORS IN UNITED STATES.
DANIEL B. GOODWIN, Waterville, New York.
L. PADDOCK, Waterville, New York.
GEORGE TIBBETTS, Troy, New York.
LOWELL HOLBROOK, New York.
CHARLES A. MACY, New York.
(One vacancy.)

OFFICERS IN UNITED STATES.
PRESIDENT—Elisha C. Litchfield.
VICE-PRESIDENT—John R. Briggs.
TREASURER—Charles A. Macy.
SECRETARY—E. D. Saxton.

CONSULTING ENGINEER AND LAND AGENT—John B. Mills, for many years Directing Engineer of the River St. Lawrence Improvements in Canada.

Hon. John G. Forbes, New York, United States.
Hon. John Vanderbilt, King's County, New York, United States.
Hon. Henry Wager, Oneida County, New York, United States.

BANKERS IN LONDON—The Union Bank of London.
SOLICITORS IN LONDON—Crowder, Maynard, Son, and Lawford, Coleman-street.
BROKERS IN LONDON—Huggins and Rowse, 1, Threadneedle-street.

LINE OF ROAD.
This very important line, now in course of construction, will unite the eastern end of Lake Ontario at Sackett Harbour with the Hudson River at the head of tide water at Albany and Troy; thus uniting in a direct line the great chain of lakes or inland seas with the Atlantic Ocean at New York. The section of country traversed by this line is the north-eastern portion of the great State of New York; and although now covered by a primitive forest of heavy growth, which is rich in almost every variety of wood and timber, and filled with mineral productions, it is agriculturally as well adapted to grazing and general farming purposes as any other section of the State. The country is filled with lakes, giving rise to most of the large rivers in the State. This whole section has remained in its normal condition until the present time, owing mainly to the course of settlements, emigration, and traffic induced by the opening of the Erie Canal, and the many lines of railroad opening to the great West.

LENGTH OF THE LINE.
The length of the line, with its branch to the iron mines of the Adirondack, will be about 200 miles. Contracts have been entered into for its construction, including the rolling stock, right of way, and stations, the whole amount not exceeding \$600,000, per mile, which is less than the average cost of railway in the United States, and not one-half the cost of the New York Central and Erie roads, each. The gross amount of the cost will be about \$1,300,000, which includes \$100,000 of rolling stock. The line will have but one summit, with level or descending grade eastward to the Hudson River, and westward to Lake Ontario; the summit being about 1700 ft. above the terminal, at 100 miles distance—the heaviest gradient being less than 50 ft. to the mile, and these occurring for three miles only, and with the slope in the direction of the heaviest traffic. \$200,000 has already been expended towards the construction of the line, and it is expected that the eastern division of 30 miles will be completed by the 1st of October next, and the whole line in eighteen months.

CONNECTIONS.
The line, and its proposed branches, will not only unite the great western lakes—whose tonnage, traffic, and commerce is larger in amount than the foreign commerce of New York—with the seaboard, by a direct and advantageous route, but will also bring the city of Montreal, and the Grand Trunk Railway in Canada, into easy communication with New York, thus materially shortening the distance over the line at present in use.

LAND POSSESSED BY THE COMPANY.
The company possess upwards of 500,000 acres of land, lying adjacent to their line, and granted to the company by the State of New York, and the individual owners of land along the line. These lands are exclusively forested, and are fitted with timber suited to shipping and mercantile purposes, and of a description universally used for locomotive fuel in the United States. For all of the varied products of this forest an extensive and unappreciated demand exists at each terminus of the line. The whole of this tract will be brought within eight hours of the city of New York by the completion of this railway.

EXTENT AND VALUE OF THE LANDED ESTATE.
The extent and value of the lands possessed by this company may be judged from the following extracts from a late report of A. F. Edwards, Esq., the chief engineer, corroborated in all respects by John B. Mills, Esq., the consulting engineer and land agent of the company.

Speaking of these lands, they say—"They are known to be covered with an extraordinary growth of timber, and on this account are worth much more than lands fit only for agricultural purposes. Let us go where we will in the State we find the lands which remain covered with wood and timber altogether the most valuable, and bringing high and increasing prices." There are of

1. Good pine timber lands 50,000 a.
2. Lands containing cherry, cedar, curled maple, tamarack, oak, elm, birch and ash, all valuable for manufacturing and special uses, and some of which are mineral lands 15,000
3. Good spruce timber lands 100,000
4. Good hemlock timber lands, valuable for plank boards and other uses 100,000
5. Lands valuable, because connected with water power, and for town lots 10,000
6. Lands valuable for cord wood, and for agricultural purposes 225,000

Total 500,000 a.

The item classed as cord wood represents wood for fuel, each cord being 128 cubic feet, 8 ft. long, 4 ft. wide, 4 ft. high.

The pine timber is of the best quality. There having been no access to it by canal or railroad, it has not been cut or destroyed. It is on the average of distance, 200 miles nearer to tide water than the pine timber on the Erie railroad, at the heads of the Genesee and Allegheny Rivers, where the best kind of timber is worth 12 sterling per thousand feet, board measure, standing in the tree.

It is acknowledged by many who have examined this country that the entire forest will average from 60 to 100 cords per acre, or will produce 20,000 ft. board measure, of sawed stuff, of the various kinds, with 60 cords of merchantable wood, and three cords of hemlock bark used for tanning leather.

The company have in addition to the 500,000 acres granted to them, the option of purchasing upwards of 250,000 acres, and which it is evidently the interest of the company to possess; this includes 4-5ths of the justly celebrated Adirondack Iron Estate of 100,000 acres, of which the company now own 1-5th. Professor Emmons, the geologist of the State of New York, in his report to the State, states that more than six millions of tons of magnetic rock ore of 80 per cent richness lies within two feet of the surface, and most of which may be removed without blasting, while there exists in immediate proximity abundance of water power, and unlimited facilities for the economical manufacture of charcoal iron.

By an Act of the Legislature of the State of New York at their last session the whole estate of this company is exempt from taxation until 1879.

TRAFFIC.
The general traffic which must flow over this line is extremely large, and leaves no doubt of the remunerative character of the undertaking. The directors estimate that their annual earnings from way or local traffic, with the road completed, will amount to upwards of \$700,000 sterling, the outlay for which will not exceed 45 per cent.

A careful examination as to the immense supply of freight existing at the summit of the road, the shortest distance from markets, the extensive and unappreciated demand for every item of this freight at the eastern terminus of the road at Albany and Troy, and at Lake Ontario west, for western demand; the facts of the gradients, level or descending, in favour of the preponderating traffic, the nominal cost of fuel, usually one-fifth of the expense of maintaining a railway line, will, when considered, fully justify the estimates of earnings, and will prove most conclusively the capability of the road to move at highly profitable rates the teaming products of the forest.

DEBENTURE BONDS.
The company have already allotted 51,000 shares of their share capital, equal to \$1,250,000, upon which 10 per cent, or \$25 per share, has been paid; the directors, by their charter, being empowered to raise capital by the issue of debenture bonds, have created bonds to the amount of \$200,000, of which they have recently sold 25,000, at 7 per cent. per annum, payable half-yearly. The remaining \$600,000 of the above bonds the directors have agreed to offer in England, the principal and interest of which will be payable in London, at the bankers of the company, at the rate of \$36s. 6d. each bond.

The interest is payable on the first days of August and February in each year. These debenture bonds are sold, payable in a single payment, or by instalments, as follows:—

On the 1st day of August proximo £28 6 8
" October " 30 0 0
" December " 30 0 0
" February, 1888 30 0 0
" April " 30 0 0
" June " 30 0 0
" August " 30 0 0

Provisional certificates will be issued by the Union Bank of London upon the payment of each instalment, and when all are paid the certificates will be exchanged for the bonds, or the instalments may be anticipated by the payment of the bonds in full at any time, interest to be adjusted at 7 per cent. per annum.

OPTION AS TO SHARES.
A right to take shares in the capital stock of the railway is reserved to each bondholder, the privilege of three shares being attached to each bond of \$1000, or \$200 6s. 8d., the right to be exercised within five years, upon a payment when taken of 10 per cent., or \$25 per share, which is all that will be probably called for, and for this purpose 9600 shares have been withheld from the public.

SECURITY.
The company have no floating debt, and the amount of the bonds is secured upon the whole property of the company in lands, railways, railway plant, &c., the entire of which is mortgaged to three trustees for repayment of the amount. This loan is the first and only loan on all the legal and equitable rights of the company in all its real estate, and like mortgages in other instances, must stand prior to every other lien till these bonds are duly cancelled. In its effect it is in all respects like the ordinary bonds and mortgages taken for loans.

SINKING FUND.
It is provided that a sinking fund of \$50,000, or \$16,000 per annum, is to be set aside out of the proceeds of the company's lands or their products, or any deficiency to be made up from the gross receipts of the road for the redemption of the bonds at their maturity; and the directors are authorized to purchase the bonds at any period during their currency for any sum not exceeding par, or \$200 6s. 8d. each.

The general features and characteristics of this company are the same as those of the Illinois Central Railroad Company, whose securities are deservedly popular in Europe and America, solely on account of the fact of their land basis.

This company possess in fee simple about the same number of acres, relatively for each mile of road or railway, as the Illinois Central Railway Company, all of which is situated in the State of New York, and is now covered with a primitive forest adjacent to the largest markets for lumber and timber in the whole country. The quantity now actually existing upon the 500,000 acres belonging to the company is 45,000,000 of tons gross, of surface products, the value of which, with the lands, when cleared, calling them 25 per acre, would be \$6,500,000, estimating the forest product upon the basis of cord wood, which is that of least value.

It will therefore be seen, that upon completion of the road, and after discharging

the debenture debt, the three shares may be considered as prospectively of at least the value of each debenture bond, at a cost of \$25 per share.

Applications to be made to the brokers,
HUGGINS AND ROWSE, 1, Threadneedle-street, London.

THE LIVERPOOL AND PILLWELL GRANITE COMPANY (LIMITED).

Capital £15,000. Divided into 750 general, and 750 special, shares of £10 each. Deposit £1 per share.

MANAGING DIRECTOR AND LOCAL SUPERINTENDENT.—Mr. W. Meyrick Jones, Pillwell.
BANKERS.—The North and South Wales Bank, Liverpool.
BROKERS.—Messrs. Drinkwater and Lowe, Liverpool.
SOLICITORS.—Messrs. Townsend, Ridley, and Jackson, Liverpool.

10, SPEKELAND BUILDINGS (opposite the General Post Office), LIVERPOOL.

This company is formed under the "Joint-Stock Companies Act, 1856," with limited liability, for the purpose of quarrying granite at Pillwell, Carnarvonshire, and elsewhere, if deemed advisable. With this object, an arrangement has been made for the assignment to the company of a lease from the Right Hon. Lord Newborough, for twenty-one years, at a very low royalty, of the Glimblet Rock, or Carregrymyll, a promontory composed of granite, situated at the entrance to the Harbour of Pillwell.

The lease, with whom this arrangement has been made, is not to receive any return or compensation for the quarry or consideration for his interest in the quarry, until the dividends upon the paid-up capital of the company exceed ten per cent.; he is then to receive one-half of the surplus dividends. This object is effected by the creation of two classes of shares—namely, general shares and special shares; the former being preference shares open to the public, and entitled to a dividend in the first instance of 10 per cent.; the special shares being allotted to the lessee in exchange for the lease, and the dividend upon them being deferred until the other shares have received their dividend of 10 per cent.; the surplus profits are then divisible equally between both classes of shares.

The dividends will be payable half-yearly.

The liability of every shareholder is limited to the amount that may be unpaid on the shares held by him.

The certainty not only of success, but also of very large profits, is stated by practical men not to admit of a doubt.

In addition to the fact that granite quarries almost invariably yield profitable returns to their proprietors, and that considerable difficulty exists in obtaining an adequate supply of granite to meet the rapidly increasing demand; there are other more cogent reasons for the opinion entertained of the certainty of immense profits to arise from quarrying granite at the Glimblet Rock:—

1. The position of the rock, accessible to vessels of moderate burthen on every side, except one, at all states of the tide, thus enabling the granite to be shipped without any expense for land carriage.

2. The superior quality of the stone, adapted not only for all ordinary purposes, but also capable of a fine polish for ornamental use.

3. The cheapness of labour at Pillwell.

4. The freedom of the harbour from all dues.

5. The low rate of freight from Pillwell, which, although a place of considerable trade, produces no commodity for export; vessels taking their cargoes thither being compelled to return in ballast, or go elsewhere in search of freight.

6. The quarries can be placed in working order at a very trifling outlay.

These are all advantages of the utmost importance, and, as it is believed that none such are possessed by any other quarry, they become certain sources upon which the company rely for the production of much larger profits than generally arise even from undertakings of a like nature.

Applications for shares may be made to Messrs. DRINKWATER and LOWE, Share-brokers, Exchange-street East, Liverpool; or to Messrs. TOWNSEND, RIDLEY, and JACKSON, solicitors, 31, Fenwick-street, Liverpool; or 1, Mortimer-terrace, Birkenhead; or at the registered office of the company, where may be obtained any further information which may be required.

Samples of the stone may be inspected at the yard of Mr. Calvert, stone merchant, Back Leeds-street.

SOUTH DEVON GREAT CONSOLS MINING COMPANY.

10A, KING'S ARMS YARD, MOORGATE STREET.

The mine belonging to this company is leased from the Duchy of Cornwall, at the low royalty of 1s. 6d. per ton, on the River Tamar, bounded on the east by the Devon Great Consols, which has sold of ore upwards of a million in value; on the south-east by the Bedford United, which has been a paying mine for years; on the south by the Old Gunns Lake, which divided a quarter of a million among the adventurers; and on the south-west by the Hingston Down Mine, which is now paying dividends.

The stratum is composed of the most congenial granite and killas, intersected by veins of copper, and a network of veins of silver.

All necessary buildings have been erected, and the steam-engine and other machinery are of the most perfect description. The shaft is sunk to the 58 ft. level, where copper ore of the highest quality is found diffused throughout the lode, the gosean having been continued to the 50 ft. level, an indication of a valuable and lasting mine, which will probably be remunerative within a very short period.

To develop this valuable property, the adventurers have authorized a subscription of £2500. Of this sum, for every 2s. 6d. subscribed one share, representing £1, will be given, should the mine pay a dividend before further capital is required; but in case the sum now proposed to be raised shall be insufficient for that object, the subscriber will derive no interest in the undertaking, but will be entitled to subscribe a second 2s. 6d. on similar conditions, but it will not be considered necessary that the whole amount of £2500 be paid. The present shareholders shall have prior option, according to the amount of their shares, but any part not taken by them will be divided among the public applying for it, and priority of application will have weight with the committee in the allotment.

FORM OF APPLICATION.
To the Directors of the South Devon Great Consols Mining Company,
GENTLEMEN,—I agree to subscribe for _____

£ _____, or any less sum than you may allot to me, upon the terms and conditions of the resolutions passed at the General Meeting of Shareholders, held on the 17th day of June, 1887, and I herewith enclose a cheque for the above sum of £ _____

Name
Residence and description

N.B. All cheques to be made payable to the South Devon Great Consols Mining Company, and to be crossed Messrs. Oldings, Sharpe, and Co.

NEW PATENT ACT, 1882.—MR. CAMPIN, having advocated

Patent Law Reform before the Government and Legislature, and in the press of the *Morning Post*, &c., is now READY TO ADVISE AND ASSIST INVENTORS IN OBTAINING PATENTS, &c., under the NEW ACT.

The Circular of Information, gratis, on application to the Patent Office and Design Registry, 150, Strand.

THE ENGINEER, of Friday, July 3, contains—Descriptions of

Direk's Improved Mode of Preparing Wort for Brewing, Lister's Improvements in Spinning, Jessop's Machinery for Washing, &c., Porter's Machinery for Grinding Cement, &c., Snellett's Apparatus for Drying Agricultural Produce, Gauntlett's Thermometric Apparatus, Rosemont's Improvements in Manufacturing Iron, Hacking's Machinery for Dressing Yarns, &c., all illustrated. Original Articles on Railway Accidents, Metropolitan Parks, Branch Railways for Agriculture, Preparation of the Soil for Sewage Manure, &c.; Manchester Meeting of Mechanical Engineers; On the Electric Conductibility of Commercial Copper, by Professor Thomson; Life of George Stephenson; Specification of American Goods Engine; the late Expedition up the Nile, &c. Patent Journal; Metal and Timber Markets; Trades of Birmingham, Wolverhampton, and the other districts; Notes from the Eastern Counties, and all the Engineering News of the Week. Price 6d., stamped 7d. Vols. I. and II., now ready, may be had from the office, or any news agent or bookseller.

Bernard Luxton, Publisher, 301, Strand, London.

INVESTMENTS IN BRITISH MINES.

Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

BRITISH MINES CONSIDERED AS AN INVESTMENT.

Recently published, by J. H. MURCHISON, Esq., F.G.S., F.R.S.

Mr. MURCHISON also publishes a *GUIDE TO THE INVESTMENT OF BRITISH MINING*, giving, at the same time, the Position and Prospects of the Mines at the end of each Quarter, the Dividends Paid, &c. The REVIEW for the Quarter ending the 31st of December last contains a Map of the Camborne District, price 1s. Reliable information and advice will at any time be given by Mr. MURCHISON, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

OPINIONS OF THE PRESS.
Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—*Mining Journal*.

The book will be found extremely valuable.—*Observer*.

A valuable little book.—*Globe*.

A valuable guide to investors.—*Herald*.

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—*Morning Herald*.

Of special interest to persons having capital employed, or who may be desirous of investing in mines.—*Morning Chronicle*.

Of great value to capitalists.—*Sunderland Times*.

Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison.—*Leeds Times*.

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—*Derby Telegraph*.

To those who wish to invest capital in British mines, this work is of the first importance.—*Wellman*.

This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—*Plymouth Journal*.

All who have invested, or intend to invest, in mines, will do well to consult this very useful work.—*Ipwich Echo*.

This is really a practical work for the capitalist.—*Stockport Advertiser*.

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—*Warwick Advertiser*.

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—*Sheffield Free Press*.

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—*Monmouth Beacon*.

Every person connected, or who thinks of connecting himself with mining speculations, should possess himself of this book.—*North Wales Chronicle*.

A very valuable book.—*Cornwall Gazette*.

All who have invested, or intend to invest, in mines, should peruse this able work. We believe a mere useful publication, or one more to be depended on, cannot be found.—*Plymouth Herald*.

Mr. Murchison will be a safe and trustworthy guide, so far as British mines are concerned.—*Bath Express*.

Is deserving the attention of every one who seeks profitable investment of his capital.—*Brighton Examiner*.

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—*Poole Herald*.

To capitalists the work will prove very serviceable.—*Birmingham Mercury*.

CORNISH MINE PHOTOGRAPHS—No. V.

BY GEORGE NEWWOOD.
THE FIRST DIVIDEND.

The life of a "toad under a harrow," or a "cock at the stake on White-suntide," is happiness itself, compared to the trials which await the captain and secretary of a poor mine. No accident occurs but it is their fault; no shareholder is in arrears but it is their neglect; no unfavourable circumstance can turn up but they ought to have foreseen it. The Chairman says they ought; the adventurers take up the word, and echo they ought, and with faces as long as fiddles cry out, "Away with them, away with them!" An old Cornish adage on these matters says, "A good mine makes a good captain." This is partially true, but that a good mine makes kind and good tempered shareholders is a truism. How different is the outstretched arm, hearty shake by the hand, or graceful recognition, and "Well captain, how d'ye do? I see you're a capital floor of an adventurer on the high road, who, without preliminary of any sort, grumbles out, "What the devil is the use of your boring me for that last call as often; when I choose to pay I will do so." "But, Sir, all say the same, and you know men won't half work, and take liberties, unless they are paid regularly. You little know what a life I lead with them when there is no money on pay-day." "I don't care a d—n about the men, or the mine either; you are all a set of knaves, and intend to ruin all that you are connected with."

No youth emerging from boyhood, or the constraint and supervision of his guardians, rejoices with such glee as captains and managers of mines on the declaration of their first dividend. All their cares, turmoils, troubles, taunts, and insults, are forgotten and forgiven; a little vanity or boast on their part must be pardoned. If they assert they all along knew the mine would early be in the dividend list, the fact of its being so should plead for them, and scrutiny wink at egotism.

Our friends, who had now almost identified themselves with mining, had entered fully into the exciting circumstances connected therewith, much as if they had been accustomed to it for years, and were determined to see everything relating to the subject, witnessed that which is not an every day occurrence—the first dividend.

At a mine near Truro, on a late occasion, such was the case. The author also kindly received an invitation to be present, but having made arrangements for examining a deep mine, he was reluctantly obliged to forego the joyous scene; this being so recent, and our previous descriptions, relating to some years since, to alter the time of action would be a species of anachronism; therefore, we will confine ourselves to our previous period and former friends. The S— Consols being the scene of the denouement, where the ceremony was carried out in very good style, in fact, arranged with that liberality and discretion such occasions require: having previously given full particulars of all proceedings, we need as well enter on the minutiae of this.

The mine had been twice before abandoned as worthless by ignorant committees, who did not know what they were about, and would not be told, by these means getting into inextricable difficulties, which ended in quarrelling among themselves. It had been now resumed for the third time, the appearances of the lode warranting the opinion that it would ultimately be found profitable. Even by the present party it had been decided to call a meeting for giving notice to the landowner to discontinue working, but the agents always assured them that it was worse than madness to do so, as they had done so much work, which would, of course, be for the sole advantage of the landlord, who could with propriety demand a corresponding premium from the succeeding parties desirous of working the mine, which would not be idle a single week. They urged, begged, and entreated the meeting not to be guilty of such suicidal folly—such ruinous resolutions. Then professional opinions (without number) or consideration of the antecedents, or experience of the inspectors) were consulted, the committee changed, the Chairman ousted, the shares fell in value to a tremendous discount, the captains got notice of dismissal, the mine and merchants' bills into arrears of pay; in fact, the whole state by the busy-body exertions of the "heutontimerumens" (there is one in every mine, as there is one fool in every parish), had got into disrepute. Even the true shareholders began to despair, when lo! the cross-cutting revealed the secret they had so long been seeking. Corresponding cross-cuts were driven from all the levels, and the agent's original opinion proved to be correct. The multitude of "reports" had bewildered the committee who in one month ordered the 20 to be driven first east, then two days after to be stopped and driven west, then stopped, and the add to be prosecuted with all speed, when as suddenly an order would come to suspend all proceedings on the mine, forgetting that salaries, rent, engine, and other expenses, must be kept up, whether the miners worked or not; and so they had gone on for months, ruining their own property by their ignorance, to the disgust of the landlord and their own loss, squandering their money without any definite object. Whatever was wrong, the "heutontimerumens" was sure always to be right, having the happy knack as they all have, of foreseeing events after they have occurred. What this discovery was made he, of course, had predicted it. Be that as it may, the discovery was made, large sales were effected, the debts of the mine paid, the unaccommodating bankers held a handsome balance on their hands, and the secretary had the satisfaction at last of announcing the circular calling the quarterly meeting that a dividend of 10s. per share would be proposed.

As had been expected, this was the best attended meeting ever held since the mine had been worked: few shareholders were absent, as they were all anxious to know how these things could so soon be, and be genuine. Many were the heart-burnings and regrets at having sold shares at ruinous prices, and many the joyous purchasers, not a few of whom were by the losers accused of having some secret information that had been withheld from them. There, too, was the busybody, to give every person information he did not himself possess, stating again he had not been willing to hold out hopes that might have been delayed. The captains boldly declared that had it not been for his meddling and ultra-ignorance, by which the committee had been partially influenced, the mine would have been dividend-paying two years before. Preparations made for the important occasion had been made: the engine-house and other buildings on the mine had been whitewashed and painted, the new fresh laid with waste from the buddles and jiggering-machines, a new hoist on the shears, the floors swept up, the doles of ore nicely rounded and everything made as neat and spruce as possible.

The day of the meeting having arrived, the now reinstated Chairman with the old committee and friends, in a carriage and four with postillion drove up to the count-house, at the door of which they were received by the lord of the manor, the smiling parson, and doctor (both of whom had purchased shares at a discount, by the advice of the captain), the secretary, captain, and our tourists. As soon as the appointed hour arrived the Chairman took his seat, amid a buzz of applause and subdued signs of gratification. The reports having been read, and, of course, received and adopted as highly satisfactory, and the accounts being duly audited and attested, were passed over without that scrutiny and squabbling heretofore inseparable from such occasions. Even the grumblers did not find out they had been cheated that month out of half a candle or twopenny worth of useless chips; when the Chairman rose and said, "Gentlemen, it now becomes my pleasing duty, and, believe me, I never had a more gratifying one in my life, to ask you to take into consideration the propriety of declaring our first dividend on the Wheel S— Consols. (Hear, hear.) It appears from the accounts just read that we have in our bankers' hands assets to the amount of 28000; our next month's cost-sheet will be about 4000. The captain says the ore you have this day seen on the floor is worth from 10000 to 12000, more; this will be sold in a fortnight at this time. All our new machinery is paid for; in fact, the mine is perfectly out of debt save the current month's expenses, the reserve is good, our daily explorations are satisfactory, and are such as to assure that our patience and perseverance will be rewarded by a great and lasting mine." Turning to the captain—"Capt. W—, be kind enough to leave the room for a few minutes with Mr. G—, the secretary. Gentlemen," addressing the meeting again, "the committee beg now to recommend that a sum of 10000, being 10s. per share on the shares of the S— Consols Mines, be now voted as a dividend, to be payable on the 5th of July next; and further, that the sum of 1000, each be presented to the captain and secretary as an acknowledgment of their services, ability, perseverance, and encouragement they have always shown to the mine and adventurers." (Hear, hear, and considerable applause.)

This was seconded by the lord of the manor, who, being resident on the spot, could testify to the zeal, attention, and solicitous care displayed by these officials, the only dissenting party being the "heutontimerumens."

who asserted, if any reward were to be given, he ought to have it. The mine would have gone down had it not been for him; he had been its main stay. He had exerted himself greatly. He had only 100, granted to him, and though he had not obtained the situation he intended, yet he had saved the mine. He had kept the captains in their situation, and the secretary's services (he was the pink of a secretary) had been secured by him; therefore, he did not see any policy in throwing away money in that manner. He held 100th part of the mine. It was of serious consequence to him, and he (nodding significantly) knew it was to others; he, therefore, begged to propose the whole sum be divided equally among the shareholders. Not finding a second, however, the dividend and gratuity were declared duly made (the grumbler remarking "Wrong again"). The secretary was ordered to draw out the cheques; the captain and he, with hearts too full for utterance, gesticulated and stammered out their thanks. A vote of confidence to the committee and Chairman was given amid acclamation, and the meeting dissolved.

Champagne and other wines were now produced. "Success to the mine," "Increased dividends," "Fish, tin, and copper," and other mining toasts, having been drunk (the personal ones being reserved till evening), the company spent an hour or two in examining the surface of the mine, inspecting the new dressing machinery, which had so much conduced to the day's dividend, and in visiting the temporary marquee, in which the miners were enjoying a good old English dinner, provided by a subscription amongst the principal adventurers on this auspicious occasion; and every person, not even excepting the grumbler himself, felt satisfied that day.

This having been accomplished, the whole party adjourned to the Royal Hotel, Truro, where a sumptuous repast was served, at 6 o'clock P.M., to the adventurers and invited guests; covers were laid for about 60. After the removal of the cloth, the usual ceremonies were gone through, until it came again to "Success to Wheel S—Consols," before proposing which the courteous secretary handed in sundry slips of paper, on which were partly written, partly printed, "Please to pay So and So, Esq., the sum of so much, on account of the Wheel S—Consols Mines." Many were the pleasant jokes that passed respecting these bits of paper, and the marked improvement in the secretary's handwriting; many had never seen it look so well before, or so easily understood, and many a smart replete was the secretary enabled to give those persons who had respectfully treated him when he was absolutely doing his duty, and preparing the way for realising this happy event.

The evening was spent, as it may be supposed all such evenings to be and are spent, in kindly feeling towards each other, which waxed warmer in expression as the hours approached towards midnight, and in the toasting of captains and agents, committee and chairman, landlord and visitors. On this occasion we believe they were honest; even the grumbler was in his best suit and best temper, as he absolutely laughed and cracked a joke.

And now for the moral. Oh, Chairman, committeemen, adventurers, and grumblers! depend on it this is a true picture, painted from and by Nature itself. Therefore, if your secretary be urgent, be not unkind. If your captain be able, though sanguine, do not discourage him; if not equal to his duties, discharge him, but do not mystify him or yourselves by a multitude of opinions, one-half of which are given by pretending nincompoops. When you have an able Chairman, keep him. Nothing tends to shake public confidence in any undertaking so much as continually changing the executive; by the time they have been inaugurated, and know their duties, their term of office expires. Above all, do not commit the management of mines to costermongers, barbers' clerks, or ignoramuses, and you too, like our pedestrians, shall assuredly have the honour of attending the "first dividend," and that on your own mine. This picture is so common that it may be taken as a general portrait. All the picture is true, and parts of it will be recognised.

Original Correspondence.

EXETER AND ASHBURTON AS MINING DISTRICTS.—No. I.

SIR,—These being such important districts, in which lead, tin, copper, and iron, have been, and will be discovered, I deem it opportune at the present time to furnish your readers with a few remarks, based on practical observation for many years past, and giving my opinion thereon.

In the first place, I would note the formation, which I consider truly magnificent for the retention of minerals. The range of Dartmoor granite to the west has a bearing of 10° or 15° north of east and south of west, where it forms a junction with the granite, schist, and clay-slate, from the parishes of Brixford north to Brest south, of at least 22 miles. The clay-slate, then, being observed, occurs to the east of the granite, and is traversed by series of granitic dykes and lodes. The granite, too, forms a variety to interest the geologist, from the coarse granular feldspathic to the fine-grained quartzite—some very compact, and some very much decomposed. These clay or porphyritic dykes above referred to (which I have only seen in the clay-slate) have a bearing of about 45° east of north and west of south, and are, therefore, entering the granite, and intersecting the lodes at various angles.

We also will look a little into the granite itself. Tin and iron are the only important minerals I know of yet to have been discovered in the Dartmoor granite, although I was told, four or five years since, by an agent at Haytor Consols (now abandoned), that he had discovered copper and silver-lead there; but I doubted the assertion, and see no reason yet to change my mind. We find a great many lodes or mineral veins traversing this—the primitive formation—having a bearing nearly east and west, in a great many of which tin and iron exists, but the tin is very thin and disseminated, although at Viteford a great quantity has been sold. This is the only instance that I know of where large deposits of tin have been discovered, and even pure thousands of pounds have been sunk on the whole. I have seen a great many lodes opened and operated upon, which, from the result, I have but an ordinary opinion of—all mining operations (excepting iron or shining ore) that will ever see in the clay-slate. I can enumerate a few—Viteford, East Birch Tor, Devon Tin Mine, Aliborough, Golden Dagger, Haytor Consols, Keator, Brimase, Huntington, Caroline Wheel Prosper, and many others I could mention. Hence, from the data we have, I cannot support a favourable theory, and would not advise a friend to embark in mining speculations in this formation for either tin, lead or copper, again excepting iron and shining ore.

As the lodes approach the clay-slate in certain localities, they assume iron and shining ore backs, of a very beautiful and rich description. I name a few of these—Hen-nock, iron; Hen-nock, black ore—shining ore; Exmouth Consols, shining ore; Beaden, shining ore; Kelly, shining ore; and many other lodes I have seen and could name of the same character and composition. As these lodes penetrate the clay-slate, and are intersected by those clay dykes, some of them must prove, and have proved, highly productive in tin and copper, which I shall show hereafter, notwithstanding mining operations hitherto have been very limited in this district.

A large lode, cross-course, or mass of mineralised ground exists in the clay-slate, to the east and at the foot of the granite (I apply the term foot, as the granite ridge invariably rises considerably higher than the ground at the back of lode), distant about three-quarters of a mile, having a bearing of 10° east of north and west of south, with an easterly dip, from 2 to 30 fms. in thickness. This piece of mineralised ground proves highly productive at places for lead ore, whilst at places also small deposits of black copper are met with, accounted for, no doubt, by the east and west lodes coming down from the granite, and crossing.

I am much surprised to find these districts so much neglected, and think, if capitalists will only turn their attention there, the result will be highly satisfactory. Next week, I shall particularly note the operations that have been carried on, beginning at Dunsford.—Exeter, June 25.

CORNWALL AND CARDIGANSHIRE—PRACTICAL MINING.

SIR,—For a long time Mr. Ennor's predictions have usually been reversed by the course of events, so that it has only been for Mr. Ennor to prophesy, and incontinently the diametrically opposite has been established. For example, after Mr. Ennor had ceased preaching the doctrine that our tin lodes would not make down, Wheel Vor and the discovery of that metal in the bottom of Dolcoath appear, and completely capsize his unfortunate theories. Again, when he argues that bodies of copper ore are only found near granite mountains, the Llandudno Copper Mines, Fary's Mount, and Som are the only go-ahead people in that district; when the fact is that it is principally their mines that are now abandoned in the papers alluded to, but geological facts are obstinate things, and provokingly extend themselves to all countries. Again, if Mr. Ennor plumes himself on denouncing East Wheal Russell, the levels refuse to obey his dictates, and by laying open ore ground augur a good mine, and the more he endeavours to explain the matter away the deeper he sticks in the mud. It is a happy thing for Cardiganshire that Mr. Ennor undertakes to prognosticate her poverty; no doubt her success will be great, in proportion to the paucity of the Cardiganshire mining district. He says, if you abstract the Llanberis Mines—that is, such mines as Fronchog, Logylass, &c.—the district would be a poor one, just as much as if in reasoning upon the Redruth district one were to say, if you leave out Buller, the Bassett, Tolgar, and a few others, the district would not be worth much, or to prove that Tavistock is a poor mining district by leaving out Devon Great Consols.

Again, Mr. Ennor says they are slow coaches in Cardiganshire—the Messrs. Taylor and Som are the only go-ahead people in that district; when the fact is that it is principally their mines that are now abandoned in the papers alluded to, but geological facts are obstinate things, and provokingly extend themselves to all countries. Again, if Mr. Ennor plumes himself on denouncing East Wheal Russell, the levels refuse to obey his dictates, and by laying open ore ground augur a good mine, and the more he endeavours to explain the matter away the deeper he sticks in the mud. It is a happy thing for Cardiganshire that Mr. Ennor undertakes to prognosticate her poverty; no doubt her success will be great, in proportion to the paucity of the Cardiganshire mining district. He says, if you abstract the Llanberis Mines—that is, such mines as Fronchog, Logylass, &c.—the district would be a poor one, just as much as if in reasoning upon the Redruth district one were to say, if you leave out Buller, the Bassett, Tolgar, and a few others, the district would not be worth much, or to prove that Tavistock is a poor mining district by leaving out Devon Great Consols.

Again, Mr. Ennor says they are slow coaches in Cardiganshire—the Messrs. Taylor and Som are the only go-ahead people in that district; when the fact is that it is principally their mines that are now abandoned in the papers alluded to, but geological facts are obstinate things, and provokingly extend themselves to all countries. Again, if Mr. Ennor plumes himself on denouncing East Wheal Russell, the levels refuse to obey his dictates, and by laying open ore ground augur a good mine, and the more he endeavours to explain the matter away the deeper he sticks in the mud. It is a happy thing for Cardiganshire that Mr. Ennor undertakes to prognosticate her poverty; no doubt her success will be great, in proportion to the paucity of the Cardiganshire mining district. He says, if you abstract the Llanberis Mines—that is, such mines as Fronchog, Logylass, &c.—the district would be a poor one, just as much as if in reasoning upon the Redruth district one were to say, if you leave out Buller, the Bassett, Tolgar, and a few others, the district would not be worth much, or to prove that Tavistock is a poor mining district by leaving out Devon Great Consols.

the general appearance of the favoured mining district, condemned by Mr. Ennor. It is not to be denied that there is some little profit given to Mr. Ennor's avowed arrow by the absurd practice followed by some people in this country of stating their capital as large, when their outlay has not been a third of it; and this affords a peg upon which ill-conditioned statisticians hang an incorrect calculation of profits; but Mr. Ennor may take it as a truth that the mines of Cardiganshire are now making profit in one year to pay 25 per cent. for all the outlay spent in all the mines for the last 20 years. There is one redeeming feature for which I am happy to give Mr. Ennor credit, which is that he has recently spoken well of Tavistock, in Cornwall; and one virtue covers a multitude of faults.—July 2.

W. B. BATTIE.

TAVISTOCK, AND ITS NEIGHBOURHOOD.—No. III.

SIR,—In my last I told you I should visit the Virtuous Lady and adjoining mines, and in my way across Roborough Down I visited the Buller and Bertha Mines. Here a very promising lode has been discovered; although the shade pit is not more than 4 fms. deep, good stones of ore can be seen; the lode is from 3 to 4 ft. wide, producing beautiful gossan, and embodied in a soft clay, which is the character of the district. About half a mile from here is the Virtuous Lady, one of the oldest copper mines in Devon, the returns from which have been larger than any other mine in England at the same depth. The stratum at surface is a mass of large quartz rocks; beneath this is soft clay, in which the large deposits of ore, &c., have been found. The situation of the mine is beautiful, and can be imagined, being at the point where the rivers Walkham and Tavy meet. To the south, on the western side of the river Tavy, is the North Tavy Mine (late Little Duke); this has been worked off and on for 50 or 60 years. Above the adit level, which is from 40 to 50 fms. deep, as they approach the hills large quantities of copper and lead ore have been returned, and with the present good management will do well. Adjoining and on the same side of the river is the Tavy Consols Mine, and which has made large returns of copper ore, and is being worked in a spirited manner; but I fear the fall in the standard will affect this mine, still, with large lodes, and machinery worked by water-power, as well as cheap carriage for all materials, the shareholders have nothing to fear. East of the river Tavy, and adjoining this, is the Lady Bertha Mine, which promised so well at the commencement. Regular monthly samplings were made up to January last, and I believe the ore sold amounted to between 3000 and 4000. The returns are comparatively small, and I find on enquiry the shaft is only 4 fms. below the 30 fm. level. What the management intend doing I could not learn, but I think something more might be done here. The mines just named are all shallow, and the large returns of ore from them speak well for their future success as well as the district. Further south, on the banks of the Tavy, I next visited South Lady Bertha. The adit here has been driven 30 fms., and the shaft sunk 40 fms. A rich pile of ore is on surface, and a water-wheel is being erected. The situation is good, and the strata all that can be desired. On the western side of the river is another young mine, called Penham Bridge. A former company laid out a good sum of money, and the mine was worked for some time, but the most valuable assistance in fully developing this very promising mine. The lode in the back of the adit is producing good ore for 30 fms. in length. The captain informed me that they were about to erect a crusher and other machinery for the effectual working of the mine. It being summer time, and the valley from this to the Virtuous Lady so rich in landscape, a competent pen might be well employed in describing it.

AN OLD HAND.

ON MINING FRAUDS.

SIR,—I am greatly delighted to witness the efforts you are continually making in the Journal on behalf of miners and their interests. By showing the characters of some of those able men who have held the management of mines in their true colours you will do much good. Miners owe you a debt of gratitude for your endeavours. You do well (as you certainly are every doing) to uphold bona fide mining, and expose mining frauds, and to show the mining community the error of their ways. It is also the duty of every one detesting such deception to give you such information as shall make its promulgation world-wide. These means will keep the knaves more under dread than any other thing, save the cart's tail, which they richly deserve.

In your Journal of June 30 you hesitate because of the law of libel. It is to be hoped the law of the land may be vindicated, or the law of Lynch enforced. The mining community are almost entirely ignorant of the law. A large amount of which arises from incompetency in the management. Mining will do no good, if embarked in with prudence and perseverance; but we also want to improve our class of officials, numbers of whom are employed without having the most distant idea of qualification, interest being wholly the cause of their selection for, perhaps, a handsome salary; this is little better than downright robbery.

If all pursers and secretaries were like our Davys and Taylors it were well; but many are the instances to the contrary. I know, from long experience, that not one in ten who set themselves up for pursers or secretaries are worth anything. They are either fools, or they are knaves, or they are both. They are the terms they enter in the report-book, or how to make up an account of sales of ores. In one instance, I have lately been obliged to distrust for arrears of rent and dues, not being able to obtain an account of sales of ores from the mines, or replies to my letters. Now, had a proper person been employed, such unpleasant affairs would be avoided, and confidence between landlord and tenant established.

Many are the instances, and I have seen many, in which the mines are not independently managed. Managers are afraid of the merchants if the mine be in debt, for fear of being pounced upon for the amounts. They are thus tied to them for supplies at the merchants' own prices. These, to avoid the plea of co-partnership, and, therefore, unable to sue an adventurer, usually transfer their shares to some relative, employee, or dependent. In too many instances the calls are made more to pay the merchants' bills than to develop the mine, their extra profits far more than liquidating their calls. I understand that the law is altered, and that a state of things, at which I am not at all surprised, will revive, and with a good harvest, and consequent ease in the money market, our mines will flourish.

You will, of course, not fall to publish the trial alluded to in yours of May 30, in extension, that the soundness may be branded with the just indignation of all right thinking men. By so doing you will confer more real benefit on society than can be seen by the superficial observer. The rotten branches of the tree must be pruned, to make the vigorous and productive alone derive the benefit of the parent stalk.

Halston, June 28.

ONE WHO HAS GRANTED MINING LEASES.

THE GOLD QUESTION.

SIR,—From a communication in your last week's Journal, headed "A Word about Gold," it would appear that a revival of the excitement is apprehended which characterised the formation of the many gold mining companies in this country, with the fate of which we are unhappily too familiar, and deprecates all further allusion to, or mention of, projects having for their object the extraction of gold from quartz. That the excitement is not a revival of the excitement of 1849, is not a question. But what was the cause of their failure? The principal I conceive to have been, the selection of persons as managers abroad utterly incompetent; the improvident expenditure of capital in unsuitable machinery; the purchase on exorbitant terms of "locations," without previously ascertaining their value; and the gradual fallacy of assuming that all the quartz of any given vein, which indicated, in however slight a degree, the presence of gold contained more or less of the precious metal, and might be made to yield up its latent riches by crushing and amalgamation. It has now been clearly ascertained that gold does not impregnate the whole mass of quartz, but is only partially distributed, and that a careful selection must be made to render its treatment profitable. But the most important fact, the result of the most recent experience, is now found to be that the oxides, wherever they are observed in the quartz, and which in that state could be made to produce no gold whatever, can, by being submitted to chemical treatment, be converted into the metallic state, and made to yield extraordinary results.

Does your correspondent, however, intend to assert that there is no quartz in California under the existing imperfect system, is worked with profit, and on a considerable scale? The fact is notoriously the reverse. Why, Sir, in the Times of last Tuesday, a letter appeared from the correspondent of that paper in San Francisco (and it must be considered a fair and impartial testimony), from which I make the following extract:—"In quartz mining a great advance has been made of late years. The business is now well understood, and where it is undertaken with sufficient capital, and conducted with skill and judgment, pays handsomely." Is your correspondent, not doing, in this, to affirm that the resources of science are exhausted, and that chemistry can do no more for the solution of this great problem? If so, I beg most earnestly to invite his attention to the process of Mr. Squire, which has been more than once alluded to in this Journal; and I recommend him to discard prejudice and preconceived opinions, and visit the offices of that gentleman, hear his statements, and view the results of his experiments. He will then be in a better position to judge whether the gold question can be considered as settled in this or in any other country, and to prepare his report to the subject, and to disclaim all intention of puffing Mr. Squire. I have not the slightest interest in that gentleman, or in his discoveries, beyond that of any other individual of my unfortunate class; and I will only add that I think it now behoves the shareholders in all the surviving companies, but of the Quartz Rock in particular, whose quartz was undoubtedly the most promising, and on which Mr. Squire has operated with extraordinary success, to take the initiative, and offer such an amount of support as shall encourage the directors in renewed efforts to redeem their losses, and to resume at least some experimental operations on their almost abandoned properties.

July 1.

A SHAREHOLDER IN GOLD COMPANIES.

SOUTH LADY BERTHA, AND ITS MANAGEMENT.

SIR,—In your valuable Journal of last week there is a paragraph, headed "South Lady Bertha," signed "One and All." The writer says the prospectus of South Lady Bertha looks everything one could wish, but where is the public faith? The writer professes to be a well-wisher to me, and says, by openly declaring the mistakes made by me while agent of Lady Bertha Mine, the South Bertha shares will not hang long on hand. If "One and All" had pointed out the so-called mistakes, I should then have had an opportunity of replying to him. Possibly, "One and All" is not aware that when I obtained the grant of this property there had not on any previous occasion been a turf out for mining purposes, and from the first month's working (Sept., 1855) 187,138, 11d. worth of ore was sold. There was a cry that all the ore was gone; the cry did not emanate from me, as the returns will prove, 187,138, 11d. worth of ore being sold the second month, Nov. 1, 1855, 25, 3d.; and for 17 successive months samplings were regularly kept up, to the amount of 358,000 worth of copper ore. There were sampled for Jan. 1857, 61 tons of copper ore, and if "One and All" will put his name to his letters I will tell him why more ore was not sampled for that month. Besides developing the mine and returning the large quantities of copper ore, I had to make roads and erect machinery, and no mine in the district made such rapid progress as the Lady Bertha did. If this be one of the "mistakes," I hope to be troubled with such in every mine I am connected with. It was said by me that the samplings would continue, and possibly increase; had I remained agent of the mine, I fully believe that such would have been the case, as Moy's shaft would have been down to the 30 fm. level by the middle or end of March, levels driving, and the same shaft now nearly down to the 40; and from indications, ore would have been met with at Goss's shaft and the eastern part of the mine. From what is past, I judge for the future. If "One and All" is or was a shareholder in Jan. 1857, he had Mr. A. Murray and Captain Metcalfe (the present agent) report of the Lady Bertha Mine, where they tell the shareholders 50 tons of ore per month can be sampled by the employment of 25 men, and eight of these men would be in crop out, which, of course, could produce no ore. Why Moy's shaft has not been sunk with more despatch, and the promised 50 tons of ore per month returned (by the person that assisted in making the report for me to work by), I will leave to him, as it was only 30 days after that report was made before I left the mine, and the reporter was my

successor. The writer says I was not the only person at fault; there might be some cooking going forward, but I pledge my word there was none on my part, neither direct or indirect. My object from the commencement was to work legitimately, and do as much work in as little time as possible, as time is money in mining, believing that Lady Bertha will be a good mine. If "One and All" will give his name, I will answer any of his enquiries, but otherwise I decline to reply to him or any other anonymous correspondent.—July 2.

W. Goss.

NORTH BRITISH AUSTRALASIAN COMPANY.

SIR,—The critical position of this company at the present juncture, as produced by a portion of the shareholders, demands some notice, in the shape of a review of its affairs since the formation, in 1829, upwards of 18 years ago. From the various statements issued by the management, this company, under the title of the North British Australasian Loan and Investment Company, has passed through a severe ordeal of troubles and vicissitudes, which will be more particularly alluded to in your next Journal. Suffice it to say for the present communication, that it never before was in so prosperous a condition as at this time, and this has been wrought by the executive since the transfer of the management to London, to whom be all credit. No committee of investigation could ever discover the contrary; no doubt remains upon the point. The property is valuable, and the management elected at the meeting, on Monday last, have but to continue the efforts so ably put forth by the managers, Messrs. John Taylor and sons, and the board of directors, to ensure this being the best dividend-paying Australian property of the day. No miserable dodge of underpaying the working officials to gain a temporary applause at a meeting will ever succeed if a company is to prosper, pay your servants sufficient to keep them and their families as becomes their station, or else, perchance, the Robson or Hepdath fashion of helping themselves may be realised, to the detriment of the company. Shareholders, be warned in time; and if, as supposed, you intend altering your constitution at the meeting on July 15, be sure you appoint good men, and pay them liberally. Only one feeling of regret pervades the City since the determination of Messrs. John Taylor and sons to resign their post has become known. No man could have acted more honestly, or with greater integrity and good nature; throughout their conduct has shown out in bold relief, and though a certain few may think it easy to replace them, sure I am that the greatest consideration must be brought to bear upon the point before their equal will ever be found. I will resume this subject next week.

July 3.

ANOTHER SHAREHOLDER.

RATING OF ROYALTIES OF MINES.

The Committee reassembled on Tuesday. Mr. Kendall (Chairman), Mr. Smith Child, Mr. Foster, Mr. Davies, Mr. Spooner, Mr. M. Williams, Mr. Davey, Mr. Colville, and Mr. Hussey Vivian were present.

Mr. RICARDO, Member for the Potteries, said he was anxious to have several of his constituents examined upon this subject. Every district was distinct, and presented a different phase of this important question. The matter had taken a longer time than was anticipated, and as large interests and sums of money were involved, he hoped that care would be taken to have a witness from each district, so that each particular phase of this question might fairly be placed before the committee.

The CHAIRMAN said the opinion of Mr. Ricardo was of great value, and as the enquiry involved thousands of pounds, he thought it would be false economy not to go fully into the whole question.

Mr. WESTON, of Cheshire, Staffordshire, examined by Mr. SMITH CHILD, —I am clerk of the Guardians of the Cheshire Union. The area of the Union is 56,000 acres. New ironstone mines have been discovered, and were first worked about three years ago. The mines extend over not less than 10,000 or 12,000 acres, and are likely to be still further extended. The thickness varies from 1 ft. to 2 ft. 4 in. The average royalty paid varies from 1s. 6d. to 3s. 6d. a ton. There is one instance of a small property in the parish of Burslem, where the mine is worked by hand, and the royalty is 1s. 6d. per ton, with minimum and maximum rates of 3000, a year. There are not more than six or seven firms in all. There is coal in the district, but not of very good quality. The quantity of iron raised per week is from 2500 to 3000 tons. The mines are worked in various ways, very few being by shafts. The levels now worked are of no great length—not more than half a mile; in many instances considerably less. The mines are very little troubled with water, as the mines on the other side, belonging to the Duke of Devonshire, have been well drained. The expense of raising the ironstone is 1s. 6d. per ton, and the other expenses come to 5s. 6d. per ton; office expenses, 1s. per ton; and royalty, 1s. 6d. per ton, making a total expense of 8s. per ton. The selling price is 14s. per ton, showing a profit of 5s. per ton. The farm day-labourer will get from 12s. to 14s. a week. We have a good number of cases from men who have no settlement, consequent upon sickness and accident; but being scattered over the entire union, individual parishes do not feel it, but I have no doubt that the increase will be augmented. In the parish of Burslem the poor-rate is 1s. 1d. in the £. In the parish of Burslem, where we find in the parishes where the poor-rate is highest. The coal mine is rated according to the acreage. The rate in the parish of Cheshire where the profits are only about 2s. 2d. per ton. There are limestone quarries in the same district rated at rather less than 10000, a year. I believe the quantity raised exceeds 300,000 tons a year. The cost of getting the limestone, and all expenses, amounts to 10d. per ton. The accidents occurring are frequently from falling, sometimes from stones falling. There has been no less than 10 or 12 applications for relief from the mines for the last three years. Accidents in coal mines are more frequent than in any other. The engines, plant, and tramway are rated in the same way as the coal. The railway in the case mentioned just now, the poor rates are 10000, a year, is rated at 20000, a year. We have other factories, silk and cotton, which are rated upon the building and the power. The same principle applies to mines. I believe the rate per horse-power upon mines is 2d. There is a factory where there are 400 hands, which is rated upon 40,000, a year. The farmers do not depend on the mines for the sale of their produce. The tramway of the coal mine is rated, but that of the iron mine is not. The value of mineral property ought to be estimated very differently to a farm or house.

Mr. GEORGE BAKER, examined by the CHAIRMAN, —I come from the Staffordshire Potteries; the poor in my district are principally miners. The ironstone is more profitable than coal. In three years I know that 1574 have been paid for relief of the mining poor, of which three-fifths belong to iron mines. I, therefore, think the present system is very unfair. The value of other property, in many instances, is depreciated from the large quantity of surface that is destroyed. If the mines were to stop, there would most certainly be no decrease in the value of the land. The ironstone mine does not have a slub amongst themselves. When an application is made by a miner, we ascertain whether or not he has been relieved in any way by his fellow-workmen. If he has, we say, you are provided for, and we take the charge of the wife and family, which we find very burdensome. Mines are increasing, and new ground is being opened from time to time. During the last three years there have been 98 deaths from accidents in mines. The average poor-rate for the last five years has been rather on the increase; they have been as high as 9s. in 17, in Burslem, and 3s. 4d. in 14, in Tunstall. The coal and iron mines are rated in the extent of 11,955, 5s. other property 52,532. We have a considerable number of houses, manufactories, and print mills, which are also rated; they are rated upon the value of the property, and not upon the value of the land. I think it a great anomaly that the most valuable portion of the mineral property should be exempt from rates. In many instances there are coal mines, having nothing to do with iron mines, which pay poor-rate and highway rate, while the iron mines pay neither, and the latter are the people who often in another place, and in the same parish, therefore, do not get the opportunity of rating the furnaces. The non-payment of highway rate is felt as a very great grievance.

In answer to Mr. DAVIES, —In our Union we rate houses and factories at three-fourths the rentable value; land rather more. As to coal works, a mineral property, we rate according to the quantity of coal raised—that is, upon the value of the coal, as a basis from which a reduction about equal to, I think, made. I consider under the new Poor Law Act, iron mines would not be liable to the rate, as it is levied with the poor-rate.

In answer to Mr. FOSTER, —The basis of the rate upon coal mines is 7d. per ton. I think the increase of the poor rates was owing to general depression of trade. In the event of any general slackness in iron mines the owner does not, owing to the great outlay, in consequence of a temporary cessation of the demand, cease his operations, but goes on raising ore, waiting for a market. That is not so in the case of the manufacture of the district. I think miners will apply for relief as soon as any other body of men. I know the towns of Wolverhampton and Dudley, and think them prosperous towns. If mines were to cease I do not think Wolverhampton would continue to be called the "Metropolis of the iron trade," and have the position it now holds. I should say the great South Staffordshire coal field has had a good deal to do with that prosperity. The complaints of the agriculturists as to the oppressive nature of their rates have been very great. There have been a great many cases and shops built in connection with the mines, so that indirectly the mines are a great help to the poor.

In answer to Mr. M. WILLIAMS, —In my opinion it is quite fair that the iron mines should be rated to the poor.

In answer to Mr. SMITH CHILD, —I cannot state the proportion of the mining to the other labouring population. The surface does not in all cases belong to the owner of the mines. The furnaces are rated about 60, each.

In answer to the CHAIRMAN, —The object of going on "stocking" ore is to wait for a rise in the market; and generally it realises a profit.

Mr. THOS. COPE, of Stoke-upon-Trent, examined by the CHAIRMAN, —I am Chairman of the Board of Guardians. The population is 27,000, and the rateable value 43,000, odd. We assess manufactories, houses, shops, land—everything in fact but the iron mines. The basis of rating manufactories is the rent, one-sixth being of the Duchy of Lancaster. The iron mines in the parish of Stoke-upon-Trent are more valuable than the coal mines. Out of 120,000, a year rateable value, 12,000, a year does not pay a farthing to the poor-rate. My attention has been drawn to the cases of accidents brought before me, and the amount of relief paid them during the last three years is 1091, 9s. 10½d. I do not know the relative proportion from iron mines. Generally speaking, we find that when there is an accident the whole of the family is thrown upon the parish. We generally give as relief from 2s. to 2s. 6d. a head. The poor-rate in our district is increasing; perhaps not altogether owing to the mines. The parish of Stoke-upon-Trent includes a large number of agriculturalists, who do not depend in any way upon the mines for the sale of their produce. The miner is not a benefit to the agriculturist. The iron mines do not pay to the highway rate, and they consume one-tenth part of the entire gross rate.

In answer to Mr. FOSTER, —The witness said there was no canal, all the ironstone was taken 1½ mile or 2 miles on the road.

Mr. JOHN HEGGINOTHAM, of Longton, surveyed, was the next witness, examined by the CHAIRMAN, —I have been surveyor and general valuer for 13 years for the purpose of estimating the rateable value of all property. The ironstone property is on the increase over and above that of coal mines. I assume the royalties paid upon coal are 9324, a year. I assume from inference that the royalty paid upon ironstone is 14,440, a year—nearly one-third more than the royalty upon coal. The whole of the ironstone raised in the district is used in the district, while the coal is not. I estimate the number of men employed in the ironworks at about 600. In our parish the larger proportion of the poor are from the collieries, and not from the ironstone works. As a rule, I should say the accidents in our parish are more in number in coal mines than in ironstone mines. I have for years contended that the non-payment of poor-rates by iron mines is an injustice. The only reason I have ever heard of is that they employ a large number of people, and bring capital into the place; and when they are reminded that coal mines pay, they have only to reply that coal mines ought also to be exempt. I do not think the mines enhance the value of the land. All the potteries pay poor-rates upon their manufactories and steam-engines, and largely. I hold the present exemption a great grievance, and to do every one that I have conversed with.

In answer to Mr. DAVIES, the witness stated there were furnaces in the

neighbourhood which were rated to a most trifling extent—they pay less than a small factory. They are in no way rated in proportion to their value. The land is valued at 10 per cent. less than the annual rental, and from that one-twelfth is deducted upon which the rate is made. As to houses, they deducted one-sixth from the estimated value. This witness confirmed the previous statements.

Mr. ENOCH WOODWARD, of Tunstall, examined by the CHAIRMAN.—The value of Tunstall is 19,323. The manufacturers pay 20321; coal mines, 19321; houses, 10,933; railways and canals, 4507; brickworks, 8281; and other property, 27551. The poor-rate has increased in ten years from 1s. 6d. to 2s. 6d. in 17. The carriage of the iron ore over the roads involves a loss to Tunstall of several hundred pounds a year. I think iron mines ought to be rated. Tunstall consumes its manufactures 50,000 tons of coal annually, and about 180,000 tons of ironstone. I think in common justice, considering these circumstances, ironstone should pay an equitable proportion towards poor-rates and the expenditure for municipal town and county purposes, and the repairs and extensions of the highways, and other necessary provisions and institutions from which advantages are derived; more especially as the profits from this article are without parallel in commercial transactions. I say that the mines have brought an increased population, which have demoralised the whole population, and rendered necessary an increase of poor and police rates. I have no hesitation in saying that the carting of the ore is more expensive to the parish than the whole of the other local traffic put together; and the ratepayers have very just cause of complaint. The introduction of mines has decreased the value of the landed property. I should have no objection to mines if they paid their fair share of local burdens.

In answer to Mr. DAVIES.—It is found that the development of the iron trade has an injurious effect upon the local manufactures.

In answer to Mr. FOSTER.—The witness said the land was depreciated. He had known cases of land sold for building purposes which was found to be valueless for that purpose, in consequence of mining operations. In many cases, too, land has been thrown out of tillage, and when it ceased to be productive it ceased to pay rates. It may not be injurious to the great agricultural interest, considered as a whole. The iron trade brought them a population which they would be glad to be relieved of.

In answer to Mr. WILLIAMS.—The witness said he thought iron mines should be rated in a similar manner to coal mines.

The Committee reassembled on Thursday.—Mr. KENDALL in the chair.

The first witness was Mr. GEO. WILSON, examined by Mr. SPOONER.—He said he was the proprietor of coal and iron mines in the neighbourhood of Coventry. He could not state the principle upon which coal mines are rated. The coal mines have been worked upwards of a century, and large sums of money have been expended upon them, and no return has been made for the outlay that has been made. His opinion was, that very great injustice was committed by the rating of mines as at present assessed. He combated the opinion that all property, real and personal, should be rated; but if coal and iron mines are rated, then he contended that all other property, whether funded, or interest upon mortgage, or any other source of income, should be rated. The principle of rating now adopted is a tax upon capital, and not upon revenue. If it had not been that he discovered ironstone a few years ago, which he is working, his mines would not have gone on; in fact, the discovery of that ironstone alone made the mines pay. He, therefore, contended it would be unjust to increase the present difficulties of those persons engaged in mining enterprise by rating ironstone mines. He cited the opinion of Lord Mansfield, and several legal authorities, in favour of his view. He was a magistrate in three counties, and had acted as a Chairman of the Board of Guardians, and before he gave up the chairmanship the poor-rate was considerably reduced. No doubt there was an increase of population, both mining and manufacturing, but with that increase there was an increase of the means of support. There was as much, or more, fluctuation in ordinary manufactures as in mining. The rate varies from 1s. to 1s. 3d. in 17.

In answer to the CHAIRMAN.—He said his mine was called Hawley Colliery, and he had worked it since 1836. His father and brother worked it before him, and for 25 years they made no profit. Indeed, as far as coal went, he had not made a profit upon coal up to the present time. The ironstone would not have been profitable if he had not worked it with the coal. He had worked it for about twelve years. He had expended nearly 8000l. in one pit alone before he could work it, and would have to expend a similar sum in another pit. The population was in an improving state, as employment for the poor had increased. The larger number of poor that they had to relieve during his chairmanship was from the silk factory, as they get low wages. The mining population got better wages. He was rated upon his land, houses, and colliery. There had been no increase in his rating since the discovery of the ironstone. He did not consider it a good property until he had paid off the 80,000l. he had borrowed on mortgage to work it. That which makes the valuable part of the property is not rated. His opinion was that the statute of Elizabeth should not be repealed, as ironstone mining was attended with more hazard, uncertainty, and expense than coal mining. It was never found in such large quantities as coal. If the ironstone were rated, he should shut up his mines, and then would be seen whether there was such a market for labour as the mines afforded.

In answer to Mr. DAVIES.—He said he was rated upon his coal mines, although he was carrying them on at a loss. He appealed once, and got a reduction of some 200l. or 300l. a year. The mine was rateable under the 43d of Elizabeth as a coal mine, although it was working to a loss. He knew nothing of open works, or how they were rated, but the same injustice would apply in the case of "open" as in "close" workings.

Mr. FREDERICK WRAGGE, examined by Mr. SMITH CHILD.—He said he raised about 30,000 tons of ironstone annually. He came from North Staffordshire, and his mine was in the parish of Stoke-upon-Trent. The annual value of rateable property in the shape of houses had been very much increased by the erection of houses for the men. The men and boys are subscribers to the North Staffordshire Infirmary, and can demand admission there as a matter of right. The existing law is a continual source of embarrassment to all concerned. The rate is now a matter of compromise, and is very unsatisfactory. The surveyor can make a rate upon a colliery at whatever he likes, and the remedy by appeal is of a most uncertain kind. It is usual for the surveyor to make a return, and the rate is supposed to form the basis of rating, but it is notorious that it is not so. The power exercised by the surveyor is of a most irresponsible kind. Because they declined to make that return, which the surveyor had no right to call for, he has increased their rate of 1600l. by 350 per cent. against which they had appealed. It could not be contended that the royalty of 8d. per ton was the annual value of a ton of coal, but it was the purchase money of the mineral; he, therefore, objected to the term "rating." He objected to the term "lease," as applied to the mineral, and the term "rent" as applied to royalty. He did not, however, object to pay rates, but he objected to the present mode of doing it. If the royalty is to be taken, he could not take the royalty which is the capital, but the interest of the royalty should be rated. Many cases could be instanced to show the injustice of the present state of things. For instance, if a man pulled down his house the parish would not rate him on the sum for which he sold his house; or if a gentleman were to pull down any erection, the parish would not rate him upon its actual value, but they would lose the annual rate previously levied upon it.

In answer to the CHAIRMAN.—The witness said the royalties varied very considerably. Some royalties are at per ton, others at a proportion of the selling price, and others at per acre. He thought something ought to be done to vary the present system. The population and wealth of the district had been considerably increased by the mining operations. In his district more people were employed about the iron than the coal mines. He did not object to the principle of rating in the abstract, but to the manner in which the rate was levied.

In answer to Mr. DAVIES.—He said the plant was generally constructed by what is called the lessee of the mine, and is rated separately.

In answer to Mr. RIDLEY.—He said the royalty upon the mines belonging to the Duchy of Lancaster was one-twelfth of the selling price.

In answer to Mr. SPOONER.—He said he did not object to mines being rated upon a proper principle.

In answer to the CHAIRMAN.—He said he objected to the term "underground farm." A mine was not reproductive.

Mr. ROBERT HEATH, of Newcastle-under-Lyme, was the next witness, examined by Mr. SMITH CHILD.—He was Chairman of the North Staffordshire Ironmasters' Association, and considered the mode of rating was very unfair, it being upon the purchase-money of the estate. He found that collieries pay in the proportion of 10 to 1 to what was paid by manufacturers, that is, taking into account the number of hands employed. He did not consider iron should be exempt from rating, but it should be upon a more just and equitable principle. He believed the mines pay their fair share of rates at present. In a great many cases there is a compact between the masters and their workmen to support their own poor through the medium of clubs.

In answer to Mr. DAVIES.—He said the rate to the poor upon coal mines was made upon one-sixth less than the rental value.

In answer to Mr. SPOONER.—He said he thought the opening of mines was a very great benefit to the neighbourhood. He found that coal was now rated more than both coal and ironstone put together ought to pay, if a proper principle of rating prevailed.

Mr. HUGH WILLIAM WILLIAMSON (firm of Williamson Brothers) was the next witness, examined by Mr. SMITH CHILD.—He said he was largely interested in mining, and employed 1200 men and boys; resided near Tunstall. He raised more ironstone than coal. He was rated to the poor, and last year paid 3s. in 17. He complained generally of the gross injustice of the present state of things.

In answer to Mr. COLVILL.—He said he proposed to rate upon profits, and to the poor-rate alone. He would not extend it further than to poor-rate, for suppose a town improvement rate, those mines in the vicinity of towns would have to pay the rate, while others at a distance would be exempt, and which would cause those mines to be closed. The towns of Tunstall had considerably increased since the mines had been working, but the heavy town rates were doing a serious injury to the neighbourhood, and preventing the extension of buildings there, which would otherwise take place.—The Committee then adjourned.

CORNISH STEAM-ENGINES.

The number of pumping engines reported by *Leam's Engine Reporter* for the month of May is 22. They have consumed 1408 tons of coal, and lifted 11·2 million tons of water 105 ft. high. The average duty of the whole is, therefore, 54,000,000 lbs. lifted 1 foot high, by the consumption of 112 lbs. of coal. The following engines have exceeded the average duty:—

Mines.	Engines.	Length of stroke in ft.	Load in lbs.	Coal per hour in lbs.	Stroke per minute.	Coal per cubic foot of water.	Mill. lifted in 12 hrs. by 1000 ft. of water.
Great Work	Leeds's 60 in.	9-0	55,588	14-7	9-2	2033	71-7
St. Aubyn & Grylls 40 in.		9-0	17,343	13-1	6-2	662	3-7
North Roebur	Docton's 70 in.	10-0	68,350	14-2	6-9	3014	8-4
St. Wn. Frances	Marriott's 75 in.	11-0	28,693	15-4	3-2	1330	3-1
Perran St. George 60 and 100 in.		9-0	40,387	12-7	6-4	949	3-0
Cargill Mines	70 in.	9-75	43,477	11-2	3-6	1100	3-7
East Wheal Rose, Mitchell's 85 in.		10-0	3,723	12-7	4-9	1820	3-8
			77,310				57-3

Engineers' Names.—Great Work, P. Roberts; St. Aubyn and Grylls, S. G. Rose; North Roebur, J. West; South Wheal Frances, T. James; Perran St. George, S. Smith and Son; Cargill Mines, Mooking and Loam; East Wheal Rose, Hocking and Loam.

Meetings of Mining Companies.

BOILING WELL MINING COMPANY.

A quarterly general meeting of adventurers was held at the account-house, on the mine, on June 25, Mr. R. HALLETT in the chair.

Mr. EDWARD KING (the secretary) read the notice convening the meeting, and a statement of accounts was presented, from which the subjoined is condensed:—

Balance last audit	£741 19 11
February labour and bills	721 13 6
March ditto	618 3 4
April ditto	844 0 8
Lord's dues, &c.	127 2 6 = £5053 1 9
Copper ore sold	2683 1 9
Lead ditto	358 3 10
Blende ditto	99 15 5 = 3051 1 0

Balance against adventurers £ 3 0 9

Mr. KING gave an estimate of the cost and return for the three following months, showing a working profit of upwards of 6000l. for the quarter.

Mr. HENDERSON, the surveyor to the company, said he had carefully worked up the plans, and would explain the operations as Capt. Delbridge read his report. The following report was then read:—

June 25.—Since our last meeting we have driven in the 60, east of the engine-shaft, on the lode about 6½ fms. in a lode yielding some good stones of copper ore. Also risen a rise 7 fms. 4 ft. from the 80 to 50, and driven a cross-cut north 3 fms. 1 foot towards the north part of the lode; at present the lode in the 80 and yields stones of copper, not to value. In the 30, east of King's, we have driven about 15 fms. on the lode, 8 fms. on the south part, and 7 fms. on the north part; this part is small and good at present unproductive. In the 80, east of ditto, we have driven about 1½ fms. in a lode from 10 to 18 in. wide, yielding lead, blende, and stones of copper ore, in tribute ground throughout. In the 30, east of ditto, we have driven 11 fms. 5 ft. in a lode from 30 in. to 3½ fms. wide, yielding 3 tons of blende and 8 cwt. of lead per fm. Also risen towards Austin's mine 2 fms. 0 ft. 3 in., in a lode 3½ feet wide, yielding 3½ tons of blende and 5 cwt. of lead per fm. Also driven a cross-cut 3 fms. towards Austin's shaft; in this cut we have met with a branch, or it may be Hallett's lode, having a south underlay, and yielding some stones of lead and 1 ton of blende per fm., and as this lode has not been seen in the east part of the mine below the surface, it will be advisable to drive east and west to prove this lode, or branch, where the 30 cross-cut is holed to Austin's shaft; a branch of the like appearance was seen in the 30, but having a south underlay it was not much noticed. In the 20, west of Austin's, we have driven 9½ to 10 fms. in a lode yielding from 10 to 12 cwt. of lead per fm. and 1 ton of blende; the lode in the present is 14 in. wide, yielding 6 cwt. of lead and 1 ton of blende; the lode has a good appearance, and seems to be improving in value. We have also sunk a winze from the 20 to 30 at Austin's, in a lode yielding 6 cwt. of lead and 1½ to 2 tons of blende per fm. In the 20, east of Austin's, 2 fms. have been driven in a lode 1 ft. wide, stones of lead, not to value. In Rule's winze in back of the 20, 2½ fms. have been risen in a lode 1½ in. wide, yielding 7 cwt. of lead and 1½ ton of blende. In Gregory's winze, sinking from the 30 to the 40, the lode is from 20 in. to 2 ft. wide, yielding 4 cwt. of lead and 1½ ton of blende per fm. In the 30, west of the engine-shaft, we have driven 3½ fms. in a lode 2½ ft. wide, unproductive. In the 80, east of King's, we have driven 7½ fms. in a lode 2 ft. wide; the ground set on tribute at 5s. 6d., 8s., and 9s., in 17. In the 10, east of King's, we have driven 8½ fms. in a lode from 1½ to 3 ft. wide, yielding 5 cwt. of lead, and at times, 1½ ton of copper ore; at present the lode is 2 feet wide, with good stones of copper ore, but not much to value. We are also driving a cross-cut towards the south lode in this level. As this part of the lode has not been seen for 30 fms. high, and to what length it is, is an object of consideration, and we are about to sink a cross-cut to the bottom of the lode, and have sunk a new shaft from surface as deep as the 30 below, and driven a cross-cut towards the lode 3½ fms.; at this point we have met with a small branch, and about this point we expected the lode; whether it is the lode or otherwise a few feet will show; we propose still driving 8 fms. more, and see the south part of the lode, if this is the lode already cut. We are sinking a winze below the ditto on the east part of the mine, on the north part of the lode; the lode contains lead, quartz, and pyrites, and from every appearance is likely to give us good results. In the 30, east of King's, we have driven 3½ fms. in a lode 2½ ft. wide, unproductive. On the whole our prospects are cheering, and the machinery seems to be in a good state of working.

The CHAIRMAN, in moving the adoption of the report and accounts, did so with a great deal of satisfaction, from the pleasing fact that at the last meeting they had a debt against the mine of 741l. 19s. 11d.; at this meeting it was reduced to 27l. 0s. 9d. after everything had been charged up, showing a profit of upwards of 7000l. on the quarter. This was most gratifying to him, not only as an adventurer, holding 1-10th of the mine; but having originally induced his friends to join in the adventure, of which he had but one opinion,—that the speculation was a good one. This being the first meeting on the mine, he was glad to find the local adventurers attended, and on reference to the cost-book, he found in person and proxy two-thirds of the adventurers were represented. He should now move the adoption of the report and accounts, which was seconded by Mr. Wm. Harvey, of Hayle, Cornwall.

Mr. KING said that, by Capt. Delbridge's report, they would perceive that a most important addition had been made to the Boiling Well shaft by the grant of the Treve land; as this had been procured for the company by the exertions of their agent, Capt. Delbridge, and as he had only to add to the subject, and they would unanimously acknowledge his valuable services. It should be borne in mind that when he was appointed agent, in August, 1856, the mine was in a most wretched condition; and without going further into the past management, he could only add they were losing from 2000l. to 3000l. per month. He had by his indefatigable exertions and good practical mining brought the financial statement from a loss of 2000l. a month to a profit of more than the same amount.

Mr. HALLETT proposed, and it was seconded by Mr. Pool (of the firm of Sandys, Vivian, and Co.), that the shareholders duly appreciate the valuable services of Capt. Delbridge, in obtaining for the adventurers of this mine the lease of Treve lands, and beg his acceptance of a gratuity of twenty guineas.

Mr. KING said he should have to submit a most important resolution. At the last meeting of the committee they took into consideration the advisability of subdividing the shares, and having gone into the accounts, and finding the property not only self-supporting, but making profits, they came to the resolution of bringing a motion for so doing before the meeting.

The CHAIRMAN proposed and Mr. HARVEY seconded a resolution, that the mine be divided into 5000 shares, in lieu of 1000 as heretofore, which was unanimously carried. Resolutions were passed for forfeiting certain shares.

Messrs. Hallett, Boyle, Jones, and Austen, were re-elected the committee of management, and the meeting terminated with a vote of thanks to the Chairman.

GREAT WHEEL BUSY MINING COMPANY.

A meeting of adventurers in this company was held on the mine, on June 26, Mr. NICHOLAS HARVEY in the chair.

The CHAIRMAN stated he must apologise for having to meet his co-adventurers in the sawyers' house; but the manager was not prepared to meet upwards of 50 local adventurers, and what was more pleasing to him, several London shareholders, and even one or two adventurers from Yorkshire, were in attendance.

Mr. EDWARD KING (the secretary) read the notice convening the meeting, and a statement of accounts, from which the following is condensed:—

Mine costs and merchants' bills, Feb.	£2445 10 7
Ditto, Mar.	2959 19 1
Ditto, April	2089 8 8
Lord's dues, 45s. 18d. (less overcharged)	30 5 9 = £7505 6 10
Last account, 26s. 10s. 9d.	1099 18 7 = 5392 11 5
Balance in favour of mine last audit	£4492 12 10
Ore sold	1099 18 7 = 5392 11 5

Balance against adventurers £2192 15 5

Capt. Pascoe then read the following report:—
June 26.—The water is down 61 fms. 3 ft. below the deep adit in Harvey's engine-shaft; we can now go through the eastern part of the mine at this level, and up through the workings eastward. We cannot find any level in the western part of the mine at the present depth of the water. We are informed by several miners, and the plan that the level is about 7 fms. deep, and that the water is about 11 fms. above the deep adit in Harvey's engine-shaft. All the water from Wheel Fire shaft to the western part of our mine is not even enough to supply a 6-inch shaft at the above, the 60 fm. level. In the past month we have cleared and secured the sump-shaft 9 fms.—now secured to the 50 fm. level; cleared and secured Offord's shaft 17 fms.—now secured to the 62 fm. level; cleared and secured the 40, east of old sump-shaft, 12 fms.; cleared and secured the 50, west of old sump-shaft, 9 fms.; cleared the 26, east of Black Dog shaft, 80 fms.; cleared the 24, east of old sump-shaft, 11 fms.; cleared the 30, east of King's shaft, 12 fms.; driven the 50 fathom level, north of Harvey's shaft, 8 fms. to make a bob-pit, on ground for bearers and cistern, to carry the lift in the 50 fathom level at Harvey's engine-shaft; made a pit in the 50 fathom level, at old sump-shaft. In the coming month, I would recommend you to clear and secure Offord's shaft below the 62 fm. level, east of Offord's shaft; to ease down the old sump-shaft to the 62, and also to ease down King's and New Wheel Hodge shafts to the 62 without delay, as we have there several pitches to let; to clear and secure the 30, west of old sump-shaft; to clear the 40, east of old sump-shaft; and to clear the 62, east and west of King's shaft. Up to this date, we have cleared the county and other adits 4478 fms.; cleared and secured levels below the adit 683 fms.; cleared and secured shafts above and below the adit 1857 fms.; driven levels 17 fms.; cleared winzes 87 fms.; cut flats below the adit 34 cubic fms.; put down footways 280 fms.; made surface drains 5022 fms.; and have cut 1816 cubic fms. of ground for foundations of engine-houses, stamps' floors, and calcining and burning houses; total number of fathoms, 18,926. Our south engine-house will be completed in a few days. We have also built a crusher-house, pitman's house, pumpman's house, and a dry for the men to shift their clothes in—amounting to 3576 perches. The water is now down to within 4 fms. of a large course of tin at King's shaft; the place described by several miners corresponds with the place which we now see. We are told by the men who worked there that there is a vein of tin ore, 2 ft. wide, worth 3s. the 15 gallons; the lode is several ft. wide, worth altogether 9 cwt. of tin per 100 sacks. We shall have this pitch in 18 days from this date; it will, no doubt, pay one-half of our cost. The main lode here is trending whole to the south throughout this part of the mine. We are now getting down upon solid ground in several places in the mine, and shall have several pitches to let in the 62 fm. level in another month, as soon as the shafts are eased down, so as to remove the rubbish, and give access to them. We shall be able to send up a sufficient quantity of tin and copper ore stuff from the back of the 62 fm. level, and the backs of the levels above, to supply our 45 heads of stamps—so I am quite sure we shall want the 95 heads by the time we have the water out of the mine. A part of the main lode is standing whole from the adit down; and looking at the tin ore in the south towards the main lode, some to the conclusion that our engine-shaft is only a ramp for the lode now standing, and the mine now only beginning to be, notwithstanding the vast amount of copper and tin raised. A quarter lode joins the main lode in the 70, and about 80 fms. to the west of King's shaft, at the point where the course of tin comes in; a point worthy of notice, as a junction of this kind has scarcely ever, if at all, been barren of the metallic ore in

large quantities. Another point of importance is, a north lode joins the main lode at Davey's shaft at about the 60 fm. level; the ground is all whole from the 20 down, and, judging from the composition of the lode, I should say there is plenty of copper ore in the neighbourhood. We have now 33 pitches working above the 62, at tributes varying from 9s. to 13s. 4d. in 17, and several more to let in another month. The copper ore we sampled last was as good as any from underground, crushed down in a percentage; last time we could not possibly do it. We could have made our lowest parcel worth 3s. per ton by stamping it. We shall have the remaining 35 heads of stamps at work in five weeks from this date, 16 of which will be at work in a fortnight. So far as I can at present judge I should say we shall raise 30 tons of tin ore by next meeting, value about 2000l.; and 700 tons of copper ore, value 28000l.; total, 30000l.; by which time the mines will be dry, if worked as speedily as hitherto, and all our best pitches accessible; so that there will be no difficulty in then paying cost, and specially progressing to a dividend state.—J. B. PASCOE.

The CHAIRMAN stated he had carefully gone into the accounts, and found everything correct. They had heard the able report from Capt. Pascoe, which had entered into detail as to underground operations, and he had no doubt that the large and influential body of shareholders present had examined the machinery and surface works. The only surprise to him was the small amount of money expended to accomplish so far this great undertaking, which he had over and over again been told would take 200,000l., and to drain Great Wheel Busy would be to drain the whole of the western mines in the neighbourhood. It never has been a question as to the value of this property. One and all in Cornwall were agreed that it was a proverbial saying, "If they could only drain Wheel Busy it would be the best result in the county, but then look at the money it would take." They had now expended 30,000l., and had on the mine an 85-hp engine, which the manager informed them had drained the mine to the 62 fm. level in this short time, and were now dropping the lifts to the 72, which level would be unwatered in some 14 days, and he had no doubt before they met again the 90 fm. level would be dry, and from the plans the shaft was not sunk below the 100. They had one drawing engine erected, and a second one now being put up to command the western shaft, and a 36-hp stamping engine, capable of driving 130 heads of stamps, crusher, &c. The floors were being raised level down. In fact, from his long experience in mining, he believed the manager had done more in less time, and at much less cost, than at any other mine of the same magnitude in the county, reflecting the greatest credit on the manager and other agents.

Mr. OFFORD, of London, said he had much pleasure in proposing that the report and accounts now presented be received and passed. As a large adventurer in this mine, he was pleased to meet the local adventurers, and to hear from them the expression of satisfaction as to the present position and future operations.

Mr. THOMAS seconded the resolution, which was carried unanimously. Mr. JAMES FIELDING stated he held a large interest, and had come from Yorkshire to attend the meeting, and to represent several of his friends. He had been with Capt. Pascoe the greater part of the morning, and had carefully gone into the present position and future prospect of the undertaking, and he should return perfectly satisfied. He believed the management, which was a continuation of the present, would lead to lasting and profitable results. He had a balance against the mine, he should propose that a call of 11s. per share be now made, which was seconded by Mr. HIGGS, of Penzance, and carried unanimously. The CHAIRMAN stated that the views entertained by Mr. Fielding were perfectly correct; and the way to bring the mine into a profitable position was to expend the money in erecting the plant with the greatest dispatch.

A vote of thanks was given to the manager, Capt. Pascoe, and the other agents, for the able and persevering manner in which the operations have been conducted. The following were elected the committee of management:—Messrs. Harvey and Co., Messrs. Sandys, Vivian, and Co., or their representatives, Mr. R. Offord, Mr. W. Vivian, Mr. J. A. M. Pinniger, and Mr. James Fielding.

The proceedings terminated with a cordial vote of thanks to the Chairman, for his able conduct in the chair.

ESGAR MYN MYN MINING COMPANY.

An adjourned general meeting of shareholders was held at the office of the company, Fenchurch-street, on Wednesday, Mr. GEORGE HELMOR in the chair.

Mr. ROBINSON (the secretary) read the notice convening the meeting, which was called for the purpose of confirming the resolution passed on May 11.

The CHAIRMAN said the business of the meeting was to confirm, or otherwise, the resolution passed on May 11, for raising additional capital by the issue of preference shares; and if not, to wind-up the affairs of the company. Mr. W. Morgan was of opinion that winding up voluntarily would be ineffective, and that they must resort to the Court of Chancery. They had since obtained the opinion of Capt. R. Rowe, of the Laxey Mines, who stated that if 10000l. could be devoted to the driving of the mine levels, he felt convinced they would find a rich mine in Esgar Myn; and with regard to Esgar Ddu, if properly worked, he considered it hardly possible that the result must be a productive and successful mine to the shareholders. With so strong an opinion, they sent circulars to the shareholders, to ascertain whether they were prepared to take up the new capital, but had not received a single answer, and the board were not inclined to carry it on for the benefit of those who refused. Mr. HACKETT suggested that, in the event of winding up, the directors themselves should apply to the Court of Chancery, which would save a great deal of difficulty, and stop any law proceedings that might be brought against them if they attended to wind-up voluntarily.

Mr. W. MORGAN said confirming the resolution would not put them in a worse position, and as he considered it suicidal to wind-up, if they gave him a few days he would endeavour to induce some of the shareholders to take up the preference shares.

After a lengthy conversation, the resolution passed on May 11, for raising additional capital on preference shares, was confirmed, with the understanding that Mr. W. Morgan was to endeavour to get not less than 5s. per share, but taken up as or before July 15, with 10s. deposit, and calls of 2s. 6d. per month. The whole not being subscribed, the money would be returned, and the company wound-up. A vote of thanks to the Chairman terminated the proceedings.

THE WILDBERG GREAT CONSOLIDATED MINING COMPANY.

A special general meeting of shareholders was held at the London Tavern, on Monday, Mr. ROBERT CARTER in the chair.

Mr. DARLINGTON (Phillips and Darlington) read the notice convening the meeting, and the report, an abstract of which appeared in the *Mining Journal* last week.

The CHAIRMAN said, in that report the board had endeavoured to bring before the actual state of the property, and had called them together to ascertain the opinion as to the best means which could be adopted. The board had issued a circular calling upon the shareholders to contribute to the sinking of the mine, and he should bring before them the suggestion of a very large shareholder—Mr. James Minchin—who was much disappointed that they had not been able to overcome the difficulties. Mr. Minchin was of opinion that if the directors could satisfy the proprietors that the mines would eventually pay, he thought the amount could be raised upon mortgage debentures for five years, with the option of transferring them to shares; but he should not like to take any preference shares. In laying this information before them, it was his (the Chairman's) object to ascertain the feeling of the shareholders, and whether they were of opinion that the authorities had done all that was possible before them; whether they were of opinion that they ought to come forward with additional capital to prosecute the adventure! With regard to the information, that the Government, by the Beragmont officers, had stopped their washing machinery, through a breach of the rules by Mr. Dean, the communication was made to the proprietors with as little delay as possible. The stoppage only occurred on May 26, and measures had been taken as promptly as possible to meet the difficulties, and he did not think it would be long before they were resumed. He had received a letter this morning from the mines, dated June 25, which stated that they were waiting for the necessary official documents. Measures had been taken to discharge as many workmen as possible without stopping the works, so as to show that any interference was no light matter as regarded the interest of the population as well as the shareholders. The question was, whether it was to their interest to make a further advance to sell the money already paid before they were satisfied with the information given by the holders. The first question was whether they were of opinion that the information given before them; whether they were of opinion that they ought to come forward with additional capital to prosecute the adventure! With regard to the information, that the Government, by the Beragmont officers, had stopped their washing machinery, through a breach of the rules by Mr. Dean, the communication was made to the proprietors with as little delay as possible. The stoppage only occurred on May 26, and measures had been taken as promptly as possible to meet the difficulties, and he did not think it would be long before they were resumed. He had received a letter this morning from the mines, dated June 25, which stated that they were waiting for the necessary official documents. Measures had been taken to discharge as many workmen as possible without stopping the works, so as to show that any interference was no light matter as regarded the interest of the population as well as the shareholders. The question was, whether it was to their interest to make a further advance to sell the money already paid before they were satisfied with the information given by the holders. The first question was whether they were of opinion that the information given before them; whether they were of opinion that they ought to come forward with additional capital to prosecute the adventure! With regard to the information, that the Government, by the Beragmont officers, had stopped their washing machinery, through a breach of the rules by Mr. Dean, the communication was made to the proprietors with as little delay as possible. The stoppage only occurred on May 26, and measures had been taken as promptly as possible to meet the difficulties, and he did not think it would be long before they were resumed. He had received a letter this morning from the mines, dated June 25, which stated that they were waiting for the necessary official documents. Measures had been taken to discharge as many workmen as possible without stopping the works, so as to show that any interference was no light matter as regarded the interest of the population as well as the shareholders. The question was, whether it was to their interest to make a further advance to sell the money already paid before they were satisfied with the information given by the holders. The first question was whether they were of opinion that the information given before them; whether they were of opinion that they ought to come forward with additional capital to prosecute the adventure! With regard to the information, that the Government, by the Beragmont officers, had stopped their washing machinery, through a breach of the rules by Mr. Dean, the communication was made to the proprietors with as little delay as possible. The stoppage only occurred on May 26, and measures had been taken as promptly as possible to meet the difficulties, and he did not think it would be long before they were resumed. He had received a letter this morning from the mines, dated June 25, which stated that they were waiting for the necessary official documents. Measures had been taken to discharge as many workmen as possible without stopping the works, so as to show that any interference

portance to notice since last report. We sampled, on Friday last, May and June com-
puted 234 tons.

1990

With last week's MINING JOURNAL we gave a SUPPLEMENTAL SHEET, which contained—Cornish Mine Photographs—No. IV.: Sampling Day; The Rating of Royalties of Mines: Evidence given before the Select Committee of the House of Commons; On "Jigging Ores;" Rocks and Mineral Deposits of Namaqualand—No. IX.; A Word about Gold; Memo. of Mines and Miners—No. IX.: Capt. T. Lean (Marazion); Capt. Henry Francis (Goldsmithy); Capt. Charles Thomas (Dolcoath); Captain John Champion (Cargill); Mr. John Hitchins (Tavistock); Captain Nicholas Ennor (Wiveliscombe); To Intending Tourists through Cornwall—No. III., &c., &c.

REVIEW OF BRITISH MINING.—In a SUPPLEMENTAL SHEET to next week's Journal we shall give a Review of the Past Quarter, and some particulars of the Position and Prospects of the Principal Dividend and Progressive Mines, by J. H. MURCHISON, Esq., F.G.S.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET, London, July 3, 1857.

COPPER.		FOREIGN STEEL.	
	£. s. d.		Per Ton.
Copper wire.....p. lb.	0 1 3	Swedish, 12 legs.....	21 0-21 10 0
Sheet copper.....p. lb.	0 1 3-1 4	" to arrive.....	21 0-21 10 0
Sheathing and bolts.....	0 1 1-1 2	Ditto, in faggots.....	22 0-23 0 0
Bottoms.....p. lb.	0 1 1-1 2	English, Spring.....	18 0-23 0 0
Old (Exchange).....	0 0 11-1 2		
Best selected.....p. ton	120 0 0	QUICKSILVER.....p. lb.	2 0 (nom.)
Tough cake.....p. ton	117 0 0	Foreign.....	30 15 0
Tin.....p. ton	117 0 0	To arrive.....	30 15 0
South American.....	0 0 0		
LEAD.		SILVER.	
Bars, Welsh, in London.....	8 7 6-8 10 0	In sheets.....	55 0 0
Ditto, to arrive.....	8 2 6-8 3 0		
Nail rods.....	9 0 0-9 0 0	English, blocks.....	130 0 0
Stafford, in London.....	9 5 0-10 0 0	Ditto, Bars (in barrels).....	131 0 0
Bars.....	9 7 6-10 10 0	Ditto, Redhead.....	134 0 0
Hoops.....	10 10 0-11 0 0	Bands.....	135 0 0 (nom.)
Sheet, single.....	10 10 0-11 0 0	Straits.....	135 0 0 (nom.)
Fig. No. 1, in Wales.....	10 10 0-11 0 0		
Refined metal, ditto.....	10 10 0-11 0 0	TIN-PLATE.	
Bar, common, ditto.....	7 5 0-7 5 0	IC Charcoal, 1st qua. p. box.....	1 19 6-2 0 0
Ditto, railway, ditto.....	7 0 0-7 5 0	IX Ditto 1st quality.....	2 3 0-2 6 0
Ditto, Swed. in Lon.....	14 10 0-16 10 0	IX Ditto 2d quality.....	1 17 6-1 18 6
In stock to arrive.....	15 0 0-16 0 0	IX Ditto 3d quality.....	2 3 6-2 4 6
Fig. No. 1, in Clyde.....	15 0 0-16 0 0	IX Ditto 4th quality.....	1 15 0-1 16 6
Ditto, in Tyne and Tees.....	15 0 0-16 0 0	IX Ditto.....	1 19 0-1 19 6
Ditto, for sale.....	15 0 0-16 0 0	Canada plate.....p. ton	16 0-16 10 0
Staffordshire Forge Fig. 4.....	15 0 0-16 0 0	In London; 30s. less at the works.	
Welsh Forge Pig.....	15 0 0-16 0 0		
IRON.		WHEAT.	
English Pig.....	24 0 0-25 0 0	Yellow Metal Sheathing.....p. lb.	11 1/4 d
Ditto sheet.....	25 0 0-26 0 0	Weathered's Pat. Met.....p. wt.	2 2 0
Ditto white.....	26 0 0-27 0 0	Stirling's Non-lamina.....	9 0 0-9 2 0
Ditto patent shot.....	27 0 0-28 0 0	ting, or Hardened.....	9 0 0-9 2 0
Ditto, in bond.....	28 0 0-29 0 0	Surface Rails.....p. ton	10 0 0-10 5 0
American.....	none	Stirling's Patent Glasgow.....	4 0 0-5 0 0
Blaine (sheet).....p. lb.	11 1/4 d-12 1/4 d	Ditto Wales.....	4 0 0-5 0 0
Wire.....	11 1/4 d-11 3/4 d	Indian Charcoal Figs.....	7 10 0
Tubes.....	13 1/4 d-14 1/4 d	In London.....	7 10 0

REMARKS.—No material alteration has occurred in the currency of metals. The demand generally is of a limited character, and the market for most metals wears a quiet appearance.

COPPER.—The opinion entertained by dealers still prevails in favour of a further declension, which keeps the market in an unsettled state, merchants holding back their orders in anticipation of a reduction of 1d. per lb. Iron.—Scarcely any variation has taken place in our quotation, the market continuing quiet, and makers exhibit firmness in prices. Scotch pigs at one time receding to 73s. 6d., m.n.; but to-day sellers quote a slight advance, our closing quotations being 74s. and 74s. 6d. m.n., cash, g.m.b., f.o.b. in the Clyde.

LEAD.—Without anything further to add with respect to the position and prospects of this metal, sellers maintain previous prices.

SPELTER.—Holders report rather an improved enquiry, and demand an advance of 6s. per ton: 30s. 18s. has been paid for a few hundred tons for arrival. The stock here on the 1st inst. was 1147 tons.

TIN.—English is quiet, but steady. Banca, in Holland, has changed hands at 77 1/2, since which sellers demand 80 1/2. Straits has slightly risen in value, purchases having been effected at 128 1/2, the former part of the week, but the last few days 129 1/2 has been stated to have been refused.

TIN PLATES.—Contracts are now easily passed for IC coke, at 33s., good brands. STEEL.—No further arrivals have been entered.

QUICKSILVER.—There is now nothing offering at 2s. per lb.

THE TIN TRADE.—(From a Correspondent).—As the time of the Dutch sale draws nearer, the speculations as to the probable price which will be realised increase; and whilst some predict that last year's prices (72 1/2 d. to 75 1/2 d.) will not be exceeded, others gravely declare that there is no chance of cheap tin during the ensuing twelve months. Taking all the circumstances of the case into consideration, there can be little doubt that the latter opinion is by far the more likely to prove true; and should the highest bidder be under 75 1/2 d., it will be really surprising, as the production of tin has not materially increased for some time; and but for an occurrence which, although it could not much injure the position of the market, had a powerful influence upon holders, tin might now be worth 150d., and the tin mines of this country in a much better condition. At the date of the sale last year, the prices quoted upon the English market were nearly the same as at present, but tin could then be bought below the quotations; and it, therefore, appears feasible to anticipate 75 1/2 d. as the average, unless some great change takes place within the next fortnight. Last year's sale comprised 167,382 slabs, and the present will only be about 190,705 slabs (see Mining Journal, June 5), which, compared with the increased consumption, would cause a rise rather than otherwise. The miner must feel an interest in the result, as the price during the following year seldom goes below that realised at Rotterdam the preceding July.

LIVERPOOL, JULY 2.—There is no new feature of importance in our metal market since our last report. The demand for the general kinds of manufactured Iron has been of fair extent, more especially for Staffordshire hoops, rods, and sheets. Bars have been in less request. Welsh Iron is quiet, and the feeling is in favour of present rates being maintained. As an easier state of money matters is looked forward to, it is not improbable that its effect will be experienced in an increased demand from all parts; and from the decision arrived at by the iron trade at their preliminary meeting, just held, being to support current rates, it is evident that the trade is healthy. Scotch Pig-iron still exhibits a downward tendency, owing to an almost entire absence of business, and the declension in price may be quoted as 1s. per ton. The shipments for the week are 6863 tons, against 6603 tons for the corresponding week of last year, being still an excess—say, to the extent of 260 tons. There is nothing new in Tin. Tin-plates, especially coke, are in increased demand, and prices are a shade firmer; a further declension in the price of this article is not probable. Copper and Lead remain as last quoted, with a moderate demand. The following are the quotations:—Iron: Merchant bar, 7 1/2. 6d. to 7 1/2. 10s. per ton.—Tin: Common block, 130s. per ton; common bar, 131s.; refined block, 134s.—Tin-plates: Charcoal, IC, 37s. 6d. to 38s. 6d. per box; coke, IC, 32s. 6d. to 33s.—Lead: English sheet, 25s. per ton; English pig, 24s.—Copper: Cake and tile, 117s. per ton; best selected, 120s.; sheathing and bolt, 1s. 1d. per lb.—Yellow metal sheathing, 11 1/4 d. per lb.

GLASGOW, JULY 2.—The improvements in our market last week, in consequence of the expected alteration of the Russian tariff, has not been maintained. We have had little or no business in warrants, and the price has receded to 74s. 6d. For makers' iron there have also been very few orders. To-day there was rather more firmness, 74s. 6d. offered for 14 days, without finding sellers. The question of the new form of warrants has taken up the attention of the trade. Shipments for the week ending July 1, 1857, 6863 tons; ditto 1856, 6603 tons; ditto 1855, 8108 tons. From Jan. 1 till July 1, 1857, 267,460 tons; ditto 1856, 248,856 tons; ditto 1855, 291,143 tons.

MINES.—The mining share market has shown more activity this week, and a good demand has existed for several mines, though still at lower quotations than sellers generally are disposed to take. We have always noticed that after a period of excitement in the market comes depression, and then excitement again. This time the period of depression, amounting almost to a panic, caused by the high value of money, the fall in metals, and other causes has been of longer duration, and almost as bad in results

as the panic of 1847. Money, however, is getting more abundant, the dividends are due in a few days, the prospects of an early harvest most encouraging, and we learn further, from good authority, that the metal trade on the whole looks better. We trust, therefore, that the reaction, trifling as it may be, which has just commenced may be the precursor of a great improvement in business transactions, and also in prices, for the continued fall has been disheartening, not only to those who merely speculate, but to those who hold for investment, and do not so much care for market fluctuations. One of our suggestions, a fortnight since, for improving the standard—that mines should decrease their samplings until a better price could be obtained for ore—has been adopted by one or two companies, and will, we understand, be followed by several others. The Devon Consols will sample at least 700 tons under their regular monthly quantity; and if, as we believe, the stock of copper in hand is small, and the demand good, the effect of this example being followed will soon be visible in an improved price for ores. Lead appears to keep up, and shares in lead mines are firmest in the market. Tin is low, but attention is being turned to the tin trade by several parties alive to the large profits made, and we hope to see the smelters act more liberally towards the tin miners, who are far too much dependent upon them.

Devon Consols shares have been more freely offered at lower quotations, and leave off at 440 to 445, sellers. Basset shares at low prices meet with buyers, 235 to 245; South Frances, 290 to 295, and a dividend due in a few days of, probably, 8s. per share; North Basset have kept at 15 to 16, with scarcely any business doing; West Basset, 28 to 29, also flat; for Great South Tolgus there have been several buyers, at 16 1/2 to 17; East Basset also buyers, at 38 to 40, and the mine improving for copper in the 60 east; Grenville, 1 1/2 to 1 3/4; Ury shares have been picked up quietly during this week, at 2 1/2 to 3 1/4, the daily expectation of cutting the lode at the 40 being the chief inducement to purchase; Bell and Lanarth also enquired after, at 2 1/2 to 3 1/4. Many small low-priced shares, in fact, have found more attention than usual, the depreciation having been great, and there is considered to be a fair prospect in many of a favourable reaction. Wheel Margaret shares have somewhat recovered their depression, and have been buyers at 55. Margery shares still remain flat, at 10 to 11, but more enquired for. Rosewarne, 33 to 34, and several shares changed hands; it is supposed the water will not be in fork for another week at least, and the samplings are small. Herodfoot shares have been considerably in demand, and maintain their price better than any shares in the market, 7 1/2 to 7 3/4. Cook's Kitchen, 5 to 6 1/2, and more in request. Great Alfred, 6 1/2 to 7 1/4; the mine will soon be in full operation again. Alfred Consols have been more sought after, at 16 1/2 to 17. East Alfred advanced to 2 1/2, 3, and in good demand. Toladden flat, at 9 to 10; Tre-lawny, 24 to 25; West Alfred Consols have been in request, at 30 to 32; the shaft is down to the 90, and driving will now be commenced east and west on the lode. Boiling Well also more enquired after; shares have been subdivided into 5000, and the price 2 to 2 1/2. North Frances shares have been flat, at 14 to 15, but they will probably be better before long. East Russell have been largely dealt in, and the price advanced to 1 1/2. Nanteos and Penrhwy, 1 1/2 to 1 3/4, and the mine looking much better; Cwm Sebon, 1 1/2 to 1 3/4, also improved. Par Consols, 22 to 23; at the meeting a dividend, for the four months to end of April, of 9600 (12 10s. per share), was declared, and 4000 added to the reserve fund. Tehidy, 2 1/2 to 2 3/4; the mine is gradually improving, but the shares do not move up as was expected, though it may be said, in these times, it is a great thing when shares do not "go down." Wheel Edward shares kept at about 6 to 6 1/2; Lelant Consols, 3 1/2 to 4; Wheal Kitty (Lelant), 18 1/2 to 19 1/2; North Crofty, 3 1/2 to 4; Tincroft, 4 to 4 1/2, but little doing; Mary Ann, 4 1/2 to 4 3/4. In Tamar Consols a large business has been done, at 24s. to 25s.; since last week the mine has much improved. Kelly Bray shares very flat, at 15s. to 17s.; South Condurrow, 4s. to 5s.; Pollard, 1 1/2 to 1 3/4; Hender, 1 1/2 to 1 3/4; Catherine and Jane, 5s. to 10s.; Garreg, 1 1/2 to 1 3/4; East Rosewarne, 14s. to 15s.; Drake Walls, 2 1/2 to 2 3/4; East Trefusis, 6 to 6 1/2.

MINING EXCHANGE OFFICIAL LIST OF TRANSACTIONS DURING THE WEEK:—

MONDAY.—Catherine and Jane, 9s. to 9s. 6d.; Cook's Kitchen, 5 to 5 1/2; East Alfred, 23 1/2 to 24 1/2; East Russell, 15s. to 15s. 6d.; East Basset, 28 1/2 to 29 1/2; Herodfoot, 7 1/2 to 7 3/4; Margery, 10 1/2 to 11 1/2; North Levant, 3 1/2 to 4; Rosewarne United, 33s. to 34s.; South Condurrow, 4s. to 4s. 6d.; Tamar Consols, 23s. 6d. to 24s. 6d.; Wheal Edward, 6 1/2 to 6 3/4; Wheal Mary Ann, 4 1/2 to 4 3/4.

TUESDAY.—Catherine and Jane, 9s. to 9s. 6d.; East Russell, 15s. 6d. to 16s.; Herodfoot, 7 1/2 to 7 3/4; North Down, 1 1/2 to 1 3/4; Tamar Consols, 23s. to 24s.; West Alfred, 30 1/2 to 31 1/2; Wheal Edward, 6 1/2 to 6 3/4; East Basset, 28 1/2 to 29 1/2; Lady Bertha, 11s. to 12s.; North Basset, 25s. to 26s.; Rosewarne United, 34s. to 35s.; South Tolgus, 14s. to 15s.; Tamar Consols, 23s. 6d. to 24s. 6d.; Wheal Edward, 6 1/2 to 6 3/4; Wheal Grenville, 22s. 6d. to 23s. 6d.; Wheal Kitty (Lelant), 19 1/2 to 20s.; Wheal Zion, 16s. 6d. to 17s. 6d.

ON THE STOCK EXCHANGE, the following business has been transacted:—

SATURDAY, JUNE 27.—Great Wheal Vor, 4 1/2 to 4 3/4; Sortridge Consols, 1 1/2 to 1 3/4; Santiago de Cuba, 2 1/2 to 2 3/4.

MONDAY.—Alfred Consols, 16 to 16 1/2; Great South Tolgus, 16 1/2; Wheal Basset, 28 1/2 to 29 1/2; Wheal Edward, 6 1/2 to 6 3/4.

TUESDAY.—Sortridge Consols, 1 1/2 to 1 3/4; Wheal Edward, 5 1/2 to 5 3/4; Santiago de Cuba, 2 1/2 to 2 3/4; United Mexican, 3 1/2 to 3 3/4.

WEDNESDAY.—Coburn Copper, 52; Santiago de Cuba, 2 1/2 to 2 3/4; Wheal Edward, 6 1/2 to 6 3/4; Great Wheal Vor, 4 1/2 to 4 3/4; North Wheal Basset, 15 1/2 to 16 1/2; Imperial Brazilian, 1 1/2 to 1 3/4; Santiago de Cuba, 2 1/2 to 2 3/4.

THURSDAY.—Alfred Consols, 16 1/2 to 17; Great Wheal Vor, 4 1/2 to 4 3/4; North Wheal Basset, 15 1/2 to 16 1/2; Imperial Brazilian, 1 1/2 to 1 3/4; Santiago de Cuba, 2 1/2 to 2 3/4.

FRIDAY.—Great Wheal Alfred, 6 1/2 to 6 3/4; St. John del Rey, 11; Coburn Copper, 52.

THE SALES OF COPPER ORE AT THE CORNWALL TICKETINGS, during the quarter ending June, 1857, were as follows:—

Date.	Av. stand.	Prod.	Price.	Tons ore.	Pine cop.	Amount.
April 1.....	2147 10	6 1/2	225 0	3598	225 0	234,292 1 0
" 9.....	147 4	6 1/2	8 18 6	4709	309 11	32,611 10 6
" 23.....	150 10	6 1/2	3 11 0	5313	293 10	29,555 15 0
" 30.....	146 10	6 1/2	6 15 0	3579	233 11	24,375 15 0
May 7.....	145 2	6 1/2	7 4 6	3117	214 9	22,550 0 0
" 14.....	145 6	6 1/2	7 1 6	4765	321 18	33,666 8 6
" 21.....	143 14	6 1/2	5 17 0	5091	295 12	26,183 19 6
" 28.....	142 8	6 1/2	5 19 6	4283	262 17	25,653 11 0
June 4.....	137 7	6 1/2	5 13 0	4700	224 11	20,670 7 0
" 11.....	129 8	6 1/2	6 6 0	4619	314 5	27,962 10 0
" 18.....	133 13	6 1/2	4 17 6	5223	297 17	25,445 1 6
" 25.....	131 14	6 1/2	5 9 6	3065	192 6	16,899 5 6
Total for the quarter.....	50,972		3188 7			431,847 2 6
For the quarter ending March.....	49,735		3182 17			349,124 12 6
ditto December.....	48,334		3287 6			316,509 1 0
ditto September.....	49,636		3445 18			292,273 16 0
Total for the year.....	198,697		13074 8			1,376,844 12 0
Showing a quarterly average of.....	49,674		3268 12			310,211 3 0
Corresponding quarter, June, 1856.....	52,273		3427 13			308,633 18 0

We request our readers to refer to the comments we were induced to append to our last quarter's statistics in the Journal of April 4; they were full of facts, and to the purpose, straightforward, enabling "One and All" to comprehend them to their utmost extent—that the smelters had mulcted the miners of no less than 15s. 6d. per ton of ore, without any just cause, and put this additional profit into their own pockets, already overburthened with gains, and with no attempt on the miners' part to stop such unjustifiable doings. During the present quarter just ended, matters have gone worse. At the first sale, the average produce being 6 1/2, price 6s. 9d. 6d. per ton; at the last, say June 25, same produce, the price given was only 5s. 9d. 6d., showing a further deduction of 20s. per ton on the ore. The price to the consumer has likewise been reduced, from 135s. per ton tough cake and tile to 117s.; and sheathing and bolts from 1s. 3d. to 1s. 1d. per lb. Such a very serious drop in the price will naturally affect the future dividends in most of the larger productive and profitable mines, and fully accounts for the reduced value of shares in the market, if we can admit such a place actually exists. We could wish matters were on a sounder footing, both as regards the sale of ore to the smelter and traffic dealing in mining shares, all which seem to be monopolized by the few, to the prejudice of the many.

In last week's Journal we gave the usual quarterly details of the periodical sales of copper ores in Cornwall and Wales, and now subjoin

particulars of the sales of copper ore at Swansea for the quarter ending June 30, 1857:—

	Standard.	Produce.	Tons of ore.	Amount.
April 21.....	2136 0 0	12 1/2	1,870	20,481 14 0
May 5.....	130 4 0	12 1/2	1,584	21,240 4 0
" 19.....	121 4 0	16 1/2	1,135	23,336 7 0
June 2.....	119 2 6	16 1/2	1,382	27,040 1 0
" 9.....	114 2 0	19 1/2	1,430	19,011 16 0
" 23.....	113 13 6	14	1,780	24,322 3 0
Total.....			9,550	219,702 5 0
Quarter ending March.....			9,978	169,320 3 0
" December, 1856.....			9,471	142,474 8 0
" September, 1856.....			10,781	148,547 8 0
Total.....			39,859	2,000,844 9 0
Showing a quarterly average.....			9,965	150,961 2 3
Corresponding quarter, 1856.....			10,217	150,737 10 0

It will thus be seen that the past quarter shows a considerable falling off in tons and money from the corresponding quarter of last year, and that several of the foreign, as well as the Irish, mines have brought less to market; notwithstanding which the standard has been on the drooping order from sale to sale—accounted for by the fall in the price of cake copper during the periods named.

It may easily be conceived that the present price of copper will naturally cause a considerable decrease in the rate of dividends from foreign as well as Irish mines, and that neither will send more ore of low produce to market than they are obliged to whilst it continues down, consequently decreased quantities for the ensuing year may be safely contemplated.

The following are the Government Returns of the exports of articles identified with mining, the produce and manufacture of Great Britain, for the five months ending May 31; and also as compared with the corresponding five months of 1856; extracted from the "Accounts relating to Trade and Navigation," published by the Board of Trade:—

DECLARED VALUE FOR THE FIVE MONTHS ENDING MAY 31.

	1856.	1857.	Increase.
Coal and culm.....	£1,008,949	£1,107,102	£108,153
Hardware and cutlery.....	1,870,680	1,966,634	95,954
Machinery:—Steam engines.....	239,135	240,498	1,363
and parts.....	595,472	679,607	84,135
Other sorts.....	63,259,236	64,992,433	1,733,197
Metals:—			
Iron—Pig.....	258,057	270,310	12,253
Bar, bolt, and rod.....	2,567,841	2,856,049	288,208
Wire.....	69,459	74,702	5,243
Cast.....	247,703	247,703	0
Wrought.....	1,432,365	1,367,937	64,428
Steel, unwrought.....	238,662	232,066	6,596
Copper—Unwrought.....	677,730	684,698	6,968
Sheet, nails, &c.....	44,368	1,010,432	966,064
Wrought.....	34,932	1,073,898	1,038,966
Brass.....	208,037	208,037	0
Lead, pig, sheet, shot, &c.....	62,581	90,555	27,974
Lead ore, litharge, &c.....	86,151	113,408	27,257
Tin, unwrought.....	598,119	654,270	56,151
Tin-plates.....		654,311	767,749
Grand total.....	£10,303,455	£12,190,766	£1,887,311

At Camborne Ticketing, on Thursday, 2860 tons of ore were sold, realising 16,807 1/2 s. 6d. The particulars of the sale were—Average standard 129 1/2 s.; average produce, 6 1/2; average price, 8 1/2 s.; quantity of ore, 190 tons 2 cwt. At Redruth, on Thursday, 4190 tons will be sold.

The arrivals at Swansea include—From Seville, 100 tons copper ore from Aveiro, 180 tons copper ore; from Almeria, 103 tons copper ore from Hamburg, 1848 plates spelter; from Matire, 60 tons copper ore from Limpia, 166 tons zinc ore; from Algiers, 226 tons copper ore from Caldera, 93 tons copper ore, 337 bags and 207 tons silver ore.

The following dividends have been declared since the last monthly turn, published in the Journal of May 30:—

[illegible]

THE PROGRESS OF MINING IN 1856.

BEING THE THIRTEENTH ANNUAL REVIEW.

By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1843), *Gleanings among Mines and Miners*, &c.

The THIRTEENTH ANNUAL REVIEW OF MINING PROGRESS appeared in a SUPPLEMENTAL SHEET to the MINING JOURNAL of Jan. 9, 1857.

A FEW COPIES OF THE REVIEW OF 1855, containing Statistics of the Metal Trade, the Dividends and Per centage Paid by British and Foreign Mining Companies, and the State and Prospects of upwards of 300 Mines. Also, a FEW COPIES OF THE REVIEW OF 1853, 1854, and 1855, MAY BE HAD ON APPLICATION at Messrs. WATSON and CUELL'S Mining Offices, 1, St. Michael's-alley, Cornhill, London.

Also, STATISTICS OF THE MINING INTEREST. By W. H. CUELL.

WATSON AND CUELL'S MINING CIRCULAR.

published every Thursday morning, price 6d., or 11s. per annum, contains Special Reports of Mines, and the Latest Intelligence from the Mining Districts, from an exclusive resident agent; also, Special Recommendations and Advice upon all subjects connected with Mining, and interesting to investors and speculators. A Record of Daily Transactions in the Share Market, Metal Sales, and General Share Lists, &c. Edited by J. Y. WATSON, F.G.S., and published by WATSON and CUELL, 1, St. Michael's-alley, Cornhill.

N.B. Looking at the causes for the present depression in mining shares, Messrs. WATSON and CUELL have made a selection of a few dividend and progressive mines to pay good interest, with a probability, also, of a rise in value, the names and particulars of which will be furnished on application.

INVESTMENTS IN BRITISH MINES.

Mr. MURCHISON'S REVIEW OF BRITISH MINING for the QUARTER ENDING 31st March, 1857, with Particulars of the Position and Prospects of the principal Dividend and Progressive Mines, Tables of the Dividends paid in the past Quarter, and in the Years 1855 and 1856, and a MAP of the ALFRED and ROSE-WARNE MINING DISTRICTS, &c., is now READY, price 1s.; at Mr. MURCHISON'S offices, 117, Bishopsgate-street Within, London.

Reliable information and advice will at any time be given on application. Also, COPIES OF "BRITISH MINES CONSIDERED AS AN INVESTMENT." By J. H. MURCHISON, Esq., F.G.S., F.S.S. Pp. 356, boards, price 3s. 6d., by post 4s. See advertisement in another column.

CORNISH AND DEVON MINING ENTERPRISE.

By R. TARDINICK, Mining Sharebroker, Gresham House, Old Broad-street, London.

Facts and Statistics recorded, Synopsis of Dividend Mines, Plan of the Buller and Basset District, a Clear and Succinct Description of the chief Mines. All interested in such investments should possess a copy. Price 5s. bound.

ST. IVES, LELANT, and TOWENACK MINING DISTRICT.

Mr. TREWECKE begs to inform his friends and the public generally that his MAP of the above DISTRICT, and a STATISTICAL ACCOUNT thereof for the past 30 years, is NOW READY, and will immediately be sent to any party who may require a copy, on the receipt of 14 postage stamps.

Dated Uxley Lelant, Hayle, April 9, 1857.

LETTER TO THE RIGHT HON. SIR G. C. LEWIS, BART.,

Chancellor of the Exchequer.

ON THE BANK OF ENGLAND AND THE CURRENCY.

London: Edward Stanford, Charing-cross. Lavers, Bristol; and by all booksellers.

HOPKINSON'S PLANS FOR VENTILATION OF COLLIERIES.

showing separated Winds, that will Prevent all Serious Explosions in Coal Mines. On the same sheet, the Works and Ventilation of the Lund Hill Colliery are represented. Price 3s.

May be had of the Mining Journal office, 26, Fleet-street, London.

A notice of Mr. Hopkinson's invention appeared in the Mining Journal of 20th June.

NEW WORK BY COLONEL G. GREENWOOD.

Just published, in 8vo., with Map, price 7s. 6d. cloth.

RAIN AND RIVERS. Or, Hutton and Playfair against Lyell and all comers. By Colonel GEORGE GREENWOOD.

London: Longman, Brown, and Co.

Notices to Correspondents.

Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

"RAMP."—I cannot exactly fall in with Mr. Henwood's view, when he states that "these 'ramps' are not lodes." The word "ramp" I consider a technical term for all hard bars of ground in soft lodes, whether quartz or capel-like rock. I have seen many such, and in lodes, where at places all the lode has been termed "ramps;" at other places, one of the lodes has been "ramp," and the other soft and productive; and even at other places, again, "ramps" and soft intermixed—this is termed "rampy." I therefore consider "ramps" to form a portion of a lode, as much as any other material. I think, too, it is a very rare occurrence for tributaries to sink shafts. I perfectly agree with Mr. Henwood in his remarks on capitalists being oftentimes censured when "ramps" are met with, to retard progress, by ignorant, officious, and busybody committees. Those committees to whom these remarks do apply will do well to be more moderate and generous in their view of the poor miner's position, when his judgment is thus considered at fault, and not think their knowledge so eminent in mining, which very few know but little, if anything, about practically.—*Mines: Buckle, July 30.*

MIXON GREAT CONSOLS.—In your valuable Journal, about 10 weeks since, I read a letter signed "Subscriber," complaining of the want of information of the proceedings at the meetings of this company, as also stating the enormous sum which has been expended from the frequent and heavy calls on the shareholders, and of which they have not seen any account. About a month since there was another letter in the Journal, referring to the same subject, and as neither have elicited a reply, I beg to reiterate the enquiry. Why are the shareholders kept in such total ignorance of the proceedings at the meetings and prospects of that mine? I trust it may not prove a second Poltimore, which ought to be a signal warning to all shareholders to look to their own interests as it is too late.—A SHAREHOLDER.

WHEAT GUESTS MINING COMPANY.—Although in the case of Sibley v. Minton the Vice-Chancellor has restrained a creditor from further pursuing his action, the general idea is that his Honour had the impression that collusion had existed between the company and Minton, which was to a certain extent substantiated by the latter, when he said that Sibley had advised him to go against another shareholder in a former suit. I will make no comments here upon what the Vice-Chancellor must have thought of mining proceedings and the fairness attached to them, when a debtor requested a creditor to limit his proceedings with the intention of obtaining a judgment, the question of calls still remains open, and this, I am sure, can easily be tried in the Stannaries Court, which has jurisdiction in such cases. Should any bills or cheques have been given for the purpose of paying calls, and these not duly honoured, the remedy would, without doubt, lay by an action at common law. This case has excited some notice among the mining community, and it would settle a point, and make a precedent of great interest, if the case were speedily brought to an issue.—*T. M.: Corfe Castle, July 2.*

ANGLO-AUSTRALIAN GOLD MINING COMPANY.—About two months ago, a notice appeared in your Journal, stating that an engine had been sent out to Australia, and that, as soon as that arrived, the workings would be proceeded with. Since that period, no further information has come to hand, and I am at a loss to know what steps are to be taken. The deed of settlement provided, I believe, that we should have a meeting yearly. One of the directors, I was given to understand, was a solicitor of considerable eminence, and proprietor of landed property and several houses: a dinner was given near his seat previous to the departure of the expedition, which is over four years ago. We have heard nothing from them, and we are equally in the dark as to the proceedings of Mr. Jonathan Falder, one of the directors, who has now been absent nearly two years. A fatality appears to attach itself to all the movements of these sent out to the works, which many now begin to doubt have any existence save upon paper. This is certain—that, with the exception of the meagre details which from time to time are published in your Journal, nothing has ever been elicited of the proceedings of this company. If there are any liabilities to be discharged, we should at once be informed of them; and should there be any surplus, let that be returned to the proprietors, who have exercised such exemplary patience. One of the directors, Mr. Charles Hinks, resides in Birmingham, and probably he will be able to afford some information as to what he and his colleagues intend doing.—*Z. Y.: Greenwich, July 3.*

WEST MARIPOSA.—At the time of the gold mining mania I, like many of my neighbours, was simple enough to invest a little capital in this and other speculations of a similar nature: the result you can very well imagine. For a considerable period, long after the other speculations were consigned to oblivion, this still retained a place in the Stock Exchange List. Within the last few weeks, I perceive that it no longer stands there. In all the other companies with which I have been connected—the Carson's Creek, Agua Fria, Anglo-Californian, &c.—there has been some attempt made at a winding-up: we have known there that all was at an end, and some accounts have been rendered as to how the expenditure had been incurred. The directors of the West Mariposa obtained a considerable sum of money from the public. As yet no meetings have been called, nor any accounts rendered. Justice to the shareholders, and a due regard to their own character for honesty and integrity of purpose, should induce them to come forward and give some account of their stewardship. It is too bad to lose one's money, and not to know who has had the benefit of it. The past experience the public has had in gold mining in Australia, California, and especially in England, should lead them to be cautious of all projects connected with that precious but delusive metal.—*G.: Brighton, July 3.*

THE MARQUITA and NEW GRANADA MINING COMPANY.—The valuable paper sent me, and written by a gentleman long resident in New Granada, having appeared in your Journal of June 29, with reference to the "Geological Position and Formation of the Auriferous Quartz of the Purima Hill"—a property which, as I then remarked, had been saddled upon the Marquita and New Granada shareholders by a certain directorial clique, at or for the price of 40,000l., when its intrinsic and commercial value was about as many shillings. I propose, next week, to forward to you, from the same able pen some equally valuable observations, with reference to our Santa Ana Mines. These mines, however, I am happy to tell my fellow-shareholders, are spoken of in a very different tone by my correspondent, "Veritas." He considers the Santa Ana Mines as a very valuable property, and his opinions, both as regards these and the Purima Mines, are similar to those long known to have been entertained by Mr. Evan Hopkins, who himself was also a resident in New Granada for many years, and whose requirements both as a practical miner and a scientific geologist are too well known to require any eulogy from me. I may add that the promised communications respecting the Santa Ana Mines are extracted from a series of papers I have received from "Veritas," headed, "Observations on the Management and Metamorphosis of the Columbian Mining Association, established in 1834." These I shall probably give to your readers some day in extenso. He gives a full show up of certain of "Les Manieurs d'Argent" of that period.—*Cress, Richardson: 15, Charles-street, St. James's, June 30.*

MINERAL RIGHT OF WAY.—A. B. (a colliery proprietor), to join a public railway, lays rails and sleepers across a township road, and his wagons frequently obstruct the free passage of the same. Besides, in making his railway, he pulled down and took away a cop of earth which formed the side of the township road, and also destroyed a public footpath. He has not any gates across his railway at the above point, to prevent cattle, &c., straying on the same, or to protect the public from the wagons, which are shunted by a locomotive from the public railway on to his railway. Has he acted illegally in any, and which of the above? What course of proceedings should be adopted against him?—The reader and cheapest would be preferred. And can any one of the rate-payers (or the public) legally remove the rails and sleepers from across the township road?—*Islington, June 29.*

No doubt can possibly exist but that A. B. has been and is guilty of a serious illegality, of a public nuisance, which has rendered him liable to both criminal and civil proceedings—a criminal proceeding by indictment in the name of the Queen for the destruction of the road, and civil proceedings at the suit of any private person injured in his use of the road by the railway. There are many ways for redress open to a person grieved by the acts of A. B., and one is to bring an action for the recovery of damages for any injury he has sustained. Further, any person passing along the road may remove so much of the railway as obstructs his passage, and this he may do by force and without notice; or he may inform any justice that the road is out of repair and obstructed, and he will deal with the case as one of non-repair. On our best consideration, we advise the removal by an inhabitant of so much of the railway as obstructs his way on the road, and simultaneously that an information be made to the magistrate that the road is out of repair; and also, if thought proper, A. B. should be indicted for the injury done to the road by him. Nothing can be clearer than the illegality of A. B., and nothing can be surer than that any of the above-mentioned proceedings, if adopted, would be successful.

RATING OF MINES.—The evidence given last week by the practical men who were then examined far outweighs all the unmeaning talk that has been brought forward by persons and other incompetent individuals. The mining community owe you a deep debt of gratitude for publishing the reports of the committee, as well as for your unwearied and strenuous exertions in favour of the poor miner, thereby affording a strong and pleasing contrast to the Miners' Committee. I trust that, shortly, the working men in the several metallic localities will be up and doing, and by a firm and uncompromising agitation settle the question in such a manner that at least it will not be again mooted in the present generation.—*T. B.: July 2.*

RATING OF MINES.—This all-important question appears, from your account of the evidence and remarks upon it, to have taken a most decided turn in our favour; and as it is the first time I have noticed (and I have read all that you have published upon the subject), any witnesses fully bear out their opinion in their answers upon being examined closely, I am led to conclude that the late hearings will have a powerful effect upon the report which will be made. Even Mr. Kendall does not appear in such dark colours as he has heretofore, since he asserts that he is simply desirous of justice, and, if that is really his position, there can be no doubt that the whole of those engaged in mining pursuits will be benefited, as many of the mines which are now unjustly burdened with poor-rates will be relieved, and probably some system for assessing a uniform mode of assessing coal may be adopted, thus preventing the underhanded style of levying rates upon coal to double the amount to make up for iron being exempt, and of taxing open iron mines, on the ground that they are quarries. Who can prove that Mr. Kendall, in bringing in this obnoxious bill, did not anticipate opposition calculated to place the rating of mines question upon a more equitable footing? and who can venture to say that the result will not be to effectually settle the point, and thus exempt those mines now rated? I read in your last Journal that North Basset and another mine actually included two large sums for poor-rates in the statements published only the previous week, which certainly proves that something should be done in the way of legislation, since it is apparent that either the rating or the exemption of iron mines from the poor-rates has been taken care of. Although a shareholder, I should undoubtedly have taken measures to get the rate applied against, as I find by calculation that the burden upon each share is equal to about 3s. per year, which is really exorbitant in young mines. However, before taking any step now, I shall wait to see the result of Mr. Taylor's committee, as I can only believe that they have taken such steps as will ensure the mine adventurers' interest being cared for in the event of a bill being passed.—A SHAREHOLDER.

RATING OF MINES.—In your report of my evidence before the Committee on the Mines Rating Bill, the profits of these mines are said to be 40,000l. a year. I beg to say that the amount of profits was not named by me, but I stated the amount of produce to be 40,000l. to 45,000l. per annum.—*S. Edw.: Grassington Mines, Skipton, July 2.*

CONDILLERA COMPANY.—Perhaps some of your readers can inform me how this company came to be formed, and what, some time since, an application was made to the Court of Chancery to wind-up the concern, but it was opposed on the ground that an agent was dispatched to Australia with great prospects of success. Since then, no meeting has been called, nor have any steps been taken by the directors even to inform the company how their money has been disposed of. It has been asserted that a large amount of the capital has been appropriated to other than the purposes of the company. If such be the case, surely a meeting should be called, and proceedings taken at once to obtain a knowledge of the affairs, and, if necessary, expose the misappropriations of the directors. If the law is really insufficient to take cognizance of it as an offence, or to afford redress to the shareholders, the *exposé* will at least operate as a preventive against the appearance of the offenders in any other scheme for extracting gold from innocent contributors. A small contribution per share will no doubt be readily given to raise a fund to bring the matter before the public, if properly taken up.—*R. J. D.: Poole, June 25.*

CARRON-ROSA MINING COMPANY.—In reply to "Forensic," I beg to state that the mine is still working. A report from the committee of management will be published in a few weeks, detailing its present aspect and future prospects.—*Faversham: Islington, July 4.*

MANUFACTURE OF STEEL.—The last that I have seen published with reference to Uchatius's patent was the statement that the Edgemoor Vale Company were building a number of furnaces to carry out the invention upon a large scale. I have since the time of the press been found to answer excellently when coke iron is used, but that the quality of the steel is a little inferior to that produced from charcoal iron. This, of course, is only what all would anticipate, and therefore I consider that the conversion of iron into steel by one melting is now proved to be capable of application in a practical manner. The novelty and simplicity of the invention is calculated to induce its general adoption; and, strange to say, there has been no claimant to priority in England, in opposition to Uchatius, possibly owing to the absence of the process and the melting of iron, having failed to prove that their patent was infringed. The melting of cast or wrought-iron with oxides is old, and no one living can possess a patent for that, unless there be some peculiar novelty in the *modus operandi*, but the invention of a mode of manufacturing steel from iron by one melting was never even proposed until after Capt. Uchatius obtained his patent.—*J. H.: Westminster, June 29.*

RAILWAY BRAKES.—There have frequently been propositions made for stopping railway trains, but not one appears to have received anything like general adoption. This probably arises from those who have proposed to apply the brakes simultaneously to all the carriages failing to give the guard sufficient control over them. It is true that he has, in some instances, ample power to apply the brake, but I know of none which offers equal facilities for taking it off. If there is such a contrivance, not complicated by the use of springs, I think it would, if known, be generally adopted. I believe that, until some better arrangement be introduced, a system somewhat similar to that used for making the semaphore self-acting would be advantageous. The skid could be placed on one end of a lever, so that, by the fall of a weight placed at the other end, it would act upon the periphery of the wheel, and thus arrest the progress of the train. The weight could be wound up by the guard, and supported by a spring in a vertical position, so that, when the lever is required, it could be released by electricity, and the weight might, in falling, cause the lever to engage in a catch, so as to ensure the necessary pressure upon the wheel.—*J. S.: City, June 30.*

SOUTH GARRA MINES.—London managers are often complained of; it is stated that they have no local knowledge, and consequently can only trust to the reports of the agents upon the spot. I am aware that if a proper supervision be not exercised, mistakes, mismanagement, and neglect will occur; but I fear, ever, experience, that there are several mines as equally well mismanaged among ourselves as any that London adventurers lay their hands on; and when we do have the chance, without any other interference, we contrive to make as pretty a potch of it as any of us ever made would like to see. Here we have got a mine, with two large steam-engines as fine as any in the county; dressing-rooms, where we can lay our hands on the ore in all its various stages; kempings, dredge sumps, halvas, and attle, all huddled together so nicely, you would not know one from the other; inclines and tramroads, sheds and tram-wagons, timber and second-hand materials, enough to last for years, can be gathered over the whole site. We are giving returns, but making no profits. Captain John Champion, of Cargill, late of East Thel Road, said this was a good mine, and the general opinion is that it would be remunerative to the shareholders if a better system were inaugurated. I know not to whom the blame is to be attached. Notice has previously been drawn to the condition of the mine, and comments have heretofore appeared in the Mining Journal. A new code of regulations should be adopted, in order to preserve the property; as it is, it has all the appearance of a bear-garden, and seems to be only a fitting locale for wolves and foxes to prey upon the vitals of the unfortunate shareholders, who have entrusted them with their money in the belief they were legitimately and economically working the mine.—*B. L.: Truro, July 1.*

HIGH SPEED ON RAILWAYS.—Some time since, Mr. Jobard, and some other progressive gentlemen, proposed to attain a speed of 300 miles an hour upon railways, constructed with rails an immense distance apart, and of such a nature, that I do not hear anything of their scheme being carried out. I have carefully considered the subject, and have come to the conclusion that the required speed is not only attainable, but that there would be little difficulty attending the consummation of the project. I have, however, my doubts as to its practicability upon short lines, as I do not understand how the train could be conveniently stopped, unless the steam were shut off (say) 100 miles before arriving at the station when the road is level, as to apply a brake at that speed would be certain destruction. The stations must, therefore, be at least 600 miles apart, and there would not be much saving of time. But perhaps the difficulty might be overcome by having the small ordinary lines of rails between Jobard's monsters, and then the quick trains could run between the termini, passing over the slow—60 miles an hour—ones, which could easily run beneath their arched. The large rails could be tunnelled under, so as to allow the passengers by the slow trains to leave the stations. If this arrangement could be easily carried out, it would undoubtedly be a desideratum. If Mr. Jobard could make the proposition apply to sea travelling, the importance would be even greater, as we might then get from London to Melbourne in the space of a day and a half.—*D. H.: Glasgow, June 29.*

THE AUSTRALIAN MINING COMPANY.—A shareholder complains that, on applying to the liquidator, he could obtain no cash for his old shares. This is a very serious result. I remember at the time of the transfer being made to Senor de Grimaldi, that our indefatigable agent, Mr. William Campbell Gillan, plainly told all the old shareholders they would be barred from participating in the beneficial arrangement he was about to make, unless they forthwith exchanged their old scrip. If the trustees have been paid, they certainly earned their money, as without them the bargain, bad as it was, could not have been effected. Many of the shareholders have displayed great apathy, and shown a general disregard to their own interests, and it is too bad that they who would not stand by the directors in the hour of peril should now, when there is something to be obtained, urge claims which they long since have tacitly relinquished. Anyone familiar with the phases of this company must be perfectly aware of the misfortune it has gone through, and the difficult and arduous tasks that Mr. Gillan at various times has undertaken, sometimes at the request of the proprietors, and at others of the directors. Had "J. S." performed his duty as a shareholder, he would now have been able to claim his quota; neglecting that, he cannot be surprised that there is more for those who did not desert their flag.—*Justitia: Lincoln's Inn, July 1.*

MINES RATING BILL.—Your reporter has not given his report of my evidence before the Committee on this bill very correctly, and has contrived to make a plain statement into something very unintelligible. I had stated to the committee that the rateable value of lands in the parish of Dalton had risen in a very few years from 17,000l. to 33,000l., entirely in consequence of the mines of hematite iron ore which have lately been so largely developed in that parish; on which one of the Members asked me if it then happened that our miners increased the burden on the parish in the same ratio—say, as 17 to 33—I certainly think not. But the whole of Mr. Schelders's and my evidence went to show that, instead of increasing the burden, our mines have been the means of keeping down rates, which is a most indisputable fact, as we employ old men and boys that our farmers would not look at. I have now before me a return from two relief districts—one entirely agricultural, and the other chiefly mining; and although the population of the mining district exceeds the other by upwards of 2000 souls, the amount of relief is not half so great, and the number of recipients barely half; and these two districts are a fair comparison of the whole of this country are mainly attributable to our great mineral resources, I think it unwise to burden our mines with an impost which they have been so long exempt from; and I do think, if coal had been used for smelting iron ore in the blast furnace, and in generating steam, in the time of "Good Queen Bess," when our present poor-rate bill was enacted, this mineral would not have been included in things rateable, but would have also been exempt, and thus have removed the existing anomaly.—*THOMAS ROBERT: Newcastle Furnace, Ulverston.*

CHARGE MOVED OBTAINING ELECTRO-GALVANISM.—Each cell of the battery is of iron, coated with gutta serena; in the centre is a plate of aluminium, or other perfect metal, or a plate of zinc amalgamated with aluminium; between these two plates is a pot of gutta serena, or other non-conducting substance, so as to divide the space into two parts, by each plate of metal is excited by its peculiar acid. The iron is excited by sulphuric acid, and the aluminium by nitric or other acid, each diluted, and the whole cell or cells are enveloped in gutta serena or other non-conductor, with an incision for the insertion of acid, water, and prussiate of potash, and polar wires. By each metal being excited by its peculiar acid, more electricity is obtained. In the outer space, a little prussiate of potash; by chemical affinity, prussiate of iron is formed, of a dark slate colour, which, on being washed in muriatic acid, acquires a beautiful blue colour, superior to any, and a profit is obtained of the electro-galvanic battery, which pays expenses of employment and material, leaving the electric fluid gratis for an electro-magnetic engine, or for other purposes. It is offered at 30s. per cwt., while other blues sell at 120s. per cwt.—*JOSEPH JONES: Bolton-in-Moors, June 29.*

SILICUM.—Silicium is a perfect metal, similar to platinum, silver, &c., with fine atoms, fit for musical purposes, ductile, and malleable. The oxide of silicium is a glass, and occurs in sand, stone, and other earths, and, when combined with other metals, resists acids. This we see in the case of slate, flag-stones, &c., the slate being composed principally of aluminium and silicium.—*J. Jones: July 2.*

ROBINSON CONSOLS.—If "A Subscriber" had carefully read the paragraph in our Journal which he quotes, he could not have asked the question he does; and by playing at the office he would get the information he wants. The materials were laid by the public, by the company for 1025l., and the subsequent sales in detail had nothing to do with the company. We understand that the delay in closing the affairs has principally arisen from the difficulty of getting in some arrears of call.

NOUVEAU MONDE MINING COMPANY.—May I enquire, through your Journal, whether this company has met with any mishap since the meeting took place in Paris. At the office, they give the following information:—The accounts from the Altopeque Mines are good; more money is required to continue the works; the superintendent, Mr. Bray, has left the company, and has come home for the benefit of his health; the grant will find the money wanted, and new preferences will be offered to the holders of the original shares; the grant is not absolutely necessary, though desirable, and the company will be able to pay the interest on the loan. In these times, we are apt to doubt every word, and it may be that these good reports from the mines are as little likely to be verified by facts as those we were favoured with from Mr. Clement. To satisfy the public, and secure the confidence of the shareholders, the manager should publish in your Journal a report of the meeting in Paris, and then call the shareholders together, not as a formal legal meeting of the company, but for a friendly conversation, to know their opinions under circumstances.—*T. S.: June 27.*

IRON SHIP-BUILDING.—Our correspondent, Mr. John Clare, jun., of Liverpool, has again drawn our attention to the superiority of the American-built vessels to those constructed in this country, but states that we are not equal to them in the construction of the hull, and that the vessels could be built which could not be surpassed. In his opinion, the *Niagara*, which has lately arrived from the United States, is a model of naval architecture, and the nearest approach to any that he has seen for sea-going and sailing qualities. His opinion is that the management of our dockyards is faulty, and that large amounts have been lavished, which could have been saved had proper supervision been exercised, and competent persons appointed.

VULCANIZED INDIA RUBBER.—"Vulcan" may protect his patent for six months at a cost of about 7l., if done cheaply, by filing his petition, declaration, and provisional specification, in the Patent Office. Care should be taken to describe the invention properly. The assistance of a patent agent is not absolutely necessary, though desirable. No doubt vulcanized India rubber could be obtained in any quantity—if not at once, certainly as soon as the demand for it became known. Mr. Campin, patent agent, of 156, Strand, will furnish any further information.

"R. T. P." (Hope Valley) is too personal for publication.

OOLA MINING COMPANY.—"A Shareholder" writes, in answer to the communications that have lately appeared in the Mining Journal regarding this company, that the shareholders in general have every confidence in the property. The delay has arisen from various causes, but the mine is now likely to go ahead. There are no ores being raised, nor can there be until the engine is ready. The boiler is fixed, the chimney is erected, and every exertion is now being made to start the engine, and there is no doubt but that, before this month is out, ore will be again raised. The mine has been in abeyance far too long already. He to describe the invention should be hurried on, and as many as possible should be employed as can be to bring the ore to grass. All information can be obtained at the office of the Company, Cannon-house, Queen-street. In the course of next week it is the intention of the secretary to visit the mines, and to expedite the getting up of the engine, so that the work may be commenced in earnest.

SUBSCRIBERS IN AMERICA.—Our friends in America are informed that they can obtain the Mining Journal by ordering it from a bookseller in any of the principal towns in the United States. Mr. Trübner, of Paternoster-row, is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, JULY 4, 1857.

At the commencement of the year we mentioned, when alluding to the Government returns of the exports and imports from and into this country, that there was every indication that the shipments during the current year, of articles the produce and manufacture of the United Kingdom would exceed those of 1856 by about 20,000,000l. in value, although the exports of 1856 were an increase over those of 1855 to the same amount; that, in fact, the declared worth of goods sent forth from this country during 1857 would be 40,000,000l. in excess of 1855. As we proceed month by month our anticipations are shown to be well founded; while it is possible that even this enormous increase calculated upon in the business of the shipping trade will be under the aggregate returns. The statement now issued by the Board of Trade is to May 31, and, consequently, for the first five months of the year. The total declared value of the exports during this period is 50,195,541l., against 43,307,329l. for the same months in 1856, and 34,943,727l. in 1855, showing, consequently, an increase of 6,888,212l. as compared with the former date, and 15,251,814l. as respects the latter. The present returns, therefore, give an advance over 1855 at the rate of nearly 37,000,000l. for the year, and as the present and coming summer months are expected to show a much greater average, there is the best ground for believing that the total will be over 40,000,000l. contemplated some time back.

The number of vessels occupied in the conveyance of this amount of goods during the five months of this year was 16,543, representing an aggregate tonnage of 4,044,832, of which 2380 vessels of 949,010 collective tonnage were dispatched to British possessions, and 14,163 vessels with a tonnage of 3,095,822 to foreign countries. Of those to the British possessions, 541 vessels of 225,499 tonnage went forward to various parts of North America, 334 of 227,044 tonnage to the East Indies, 243 of 195,133 tonnage to Australia, and 1262 of 361,334 tonnage to "all other parts." Of the foreign list, we find that 3891 vessels of 548,732 tonnage went to France, 1709 vessels of 318,649 tonnage to Germany, 1250 vessels of 145,569 tonnage to Denmark. To the United States the number of vessels was only 572, but the collective tonnage was 547,021, just 1000 odd tons less than what was shipped for France, although the number of vessels was about seven times more in the latter case.

The same remarks apply to the other places, and, consequently, the more number of vessels employed would be no criterion of the business going on, but as the Board of Trade gives also the tonnage, a very correct view of the nature of the shipping trade can be determined. Transports with Government stores are not included in these accounts, so that the shipments shown in respect of British possessions are purely commercial.

We must now refer to that portion of this enormous trade which is exclusively identified with the mining industry of the nation. Of the total value of the exports of the United Kingdom—namely, 50,195,541l. for the five months—nearly one-fourth was represented by metals and metallic manufactures; the balance being 12,196,766l., and showing an excess over the same period of last year of 1,803,311l. The largest augmentations is shown in bar-iron and machinery. Metals of themselves—that is iron, steel, copper, brass, lead, tin—give a total of 8,104,313l., which is an

increase of 970,094, but the more detailed items are given in another column; machinery represents 1,328,717, which, as compared with the figures of last year for the same month, is an advance of 449,110; hardware and cutlery 1,555,634, an increase of 195,954; and coals and fuel 1,197,102, or an excess of 188,153, over 1856. Glass, paints, and other articles which might be included in these calculations, being the result of mining, more or less, are omitted by us, that the statement may be wholly free from what many might consider forced figures. Glass alone represents a value of 267,633, during the five months of the year; paints, 200,356, and earthenware and porcelain 635,416, making a total in these three items alone of 1,103,405, which added to the total of articles strictly legitimate would give an aggregate value of 13,300,171, and furnishing the average for the year at 35,920,408, as the result of mining operations in this country.

With such extraordinary figures before them, it is really marvellous to find that persons can deny the importance of home mining, and support foreign enterprises of this nature. It must result from ignorance of the subject, wilful or otherwise, and it is impossible to suppose that the shipments of mineral produce, as the raw material or as the manufactured article, can go on to this extent without a corresponding benefit to those who invest capital in mines; and this view of the case is taken evidently by the more acute portion of our moneyed interests, who now withhold their encouragement from foreign schemes for the production of ores, and are turning their attention to the proper or more extended development of mineral localities in different portions of the United Kingdom.

In the present returns from the Board of Trade an account is furnished of the declared value of British and Irish produce and manufactures exported from this country to each foreign territory or British possession for the year 1856. The total, which we gave in due course in the beginning of this year, was 115,826,948; of this, 82,626,509, was the value of the shipments to foreign countries, and 33,300,439, to British possessions. The East Indies, exclusive of Singapore and Ceylon, absorbed nearly one-third of this latter amount, the declared value being 10,546,190; Australia takes the second rank, and received goods to the amount 9,912,575; British North America, 4,010,328; the West Indies, 1,462,156; Cape of Good Hope and South Africa, 1,344,338; and then decreasing to 5002, which was the value of the export to Ascension for the year.

Having such a large number of Australian colonies amongst our subscribers and readers, it will be interesting to furnish the details of the 9,912,575, worth of goods sent to those possessions. Victoria necessarily stands foremost, and took 5,495,764; New South Wales, 2,684,879; South Australia, 809,237; Tasmania, 624,819; New Zealand, 337,634; and West Australia, 60,242. The total value in 1855, as respects Australia generally, was 6,278,963, so that the increase in 1856 over 1855 was 3,633,612, of which 2,705,888, was furnished by Victoria alone. There was a falling off in our shipments to West Australia in 1856, as compared with 1855, the value in the one being 60,142, and 73,241, in the other. Of the value of the exports to foreign countries in 1856, which we have shown was in the aggregate 82,626,509, the United States took about one-fourth, 21,476,126; the Hans Towns absorbed to the extent of 10,131,813; France to the extent of 6,432,550; Holland, 5,728,253; Turkey, 4,416,029; Brazil, 4,084,537; and China, 1,415,478, exclusive of Hong Kong, which was 800,645, and included in British possessions.

The best method to advance the interests of a party or a measure is, frequently, by strenuous opposition and persecution; the fairest way to judge of benefits is to compare them with their paradoxes. These premises appear to have been kept in view by several of our correspondents of last week. Not one-half the tomfooleries or Utopian ideas of ROBERT OWEN would have been noticed or perpetrated, had not a little band of over zealous bigots interfered, and by these means brought them into notoriety. Dr. Hook's refusal to admit Mrs. TROLOPE's *Year of Wreck* into the public library at Leeds, caused that novel to be read with greater avidity and curiosity than any work she had previously published. Even now, Mr. SPURGEON derives half his celebrity and astonishing popularity from the anti-Spurgeonian teachings and preachings of our own established clergy.

There is something inherent in the constitution of the British character, which demands to hear the *alteram partem* in every argument; an admirable principle it is, and the great foundation of our national liberties, civil and religious. We scarcely know whether to applaud or censure our over zealous friends in the cause of rating mines. In face of the mass of evidence adduced, they certainly cannot be so serious and persevering in their attempts as to force a division? No, no! We give Mr. KENDALL and his colleagues credit for more shrewdness and foresight than taking that step, though, having gone so far, he necessarily must make some show of determination. The enquiry now making before the parliamentary committee, and to which we particularly directed attention last week, will most certainly do mining a vast amount of good. We cannot for a moment doubt the proofs elucidated, and to be still brought forward, will show a well employed, contented, industrious population, having their clubs, benefit societies, and such like salutary provisions, paid out of their own earnings, which few of the labouring classes can boast of; and, what is still better, they have an instinctive horror of parochial relief or the workhouse, their whole lives being spent in independent labour. The aged persons on mines are usually retained to perform light duties, and are seldom discharged, as was testified by a very extensive employer.

By this enquiry the returns and extent of our mining industry will be so prominently brought forward, that we really doubt if any means could have been devised by which they could have been so publicly, so distinctly, and so effectually thrust under the notice of our capitalists; it will also render landowners more alive to their true interests than they have hitherto been. The bulk of evidence, as far as it has gone, seems fatal to the projected measure, and doubtless the landlords will see it is suicidal to enforce an Act which will discourage, at least, explorations being made on their properties that under the old regime would probably be effected.

Mining is just now recovering from the neglect into which it had fallen by mismanagement, and the want of confidence brought about by one of the periodical crises always recurring in every species of investment, and was resuming its wonted status, when some wiseacres discovered this description of property was not equally and properly rated; hence the tedious and expensive enquiry. Had they been actuated by nothing more than reason, the proceedings of last session, we should have thought, would have sufficed. But, no! These knights errant must needs endeavour to carry their crotchets, if they can, having given birth to the unseemly bantling. We warn them, they will inflict serious injury on themselves, their neighbourhoods, and their counties, whether they consider the interest of the farmer, merchant, shop-keeper, or labourer, as, if such a measure as the one proposed be passed, a heavy discouragement to new adventures will certainly be given, which will divert capital to other channels. None but the known rich mines will be worked; even they, too, will be sadly annoyed by the supervision of parochial officials (at all times troublesome), and will probably involve the management in continual turmoil and frequent litigation.

Let us now take a look at the paradox to the present state of our mining districts. What would be the consequences to the greater part, supposing capital diverted (as it most assuredly would be) from its accustomed channels? Cornwall, for instance, would become a neglected spot, the inhabitants would emigrate, the now flourishing towns and numerous villages dwindle into mere hamlets of hovels, as they were formerly, and as they were lately and are at present in similar districts in Ireland, the panacea for which is declared to be mining industry. What would become of the trade now continually occupying several steamers in the carriage of manufactured goods, groceries, &c., weekly? What would employ that immense fleet of vessels occupied by the transit of produce to Wales, and *vice versa*? The value of the surface of the land, enhanced treble within the last 20 years solely by the increased population congregated by mines, would revert to its former price, or be thrown out of cultivation, whilst the underground wealth would probably remain in its native storehouse until experience should have taught our Legislature to remove the tramels now so unjustly attempted to be enforced, despite the most experienced evidence perhaps ever offered.

But we have faith in our cause, as well as confidence in our "collective wisdom." It is our duty to call on the Members representing mining districts, particularly Devon and Cornwall, to be alive to the danger, and to take early, active, energetic plans to prevent the measure coming upon them like an avalanche, overtaking them in fancied security. Very great exertions are making by the advocates of the bill, and doubtless an ambitious individual will go to great lengths to carry his point. Mr. KENDALL says there is little or no excitement on the subject manifested. We beg his pardon; if he could see our letter parcels he would alter his opinion. But there are none so blind as those who will not see, or surely he must already have seen enough to know the bill is unpopular and unnecessary.

If "One and All" act in concert, the day is their own. The Hydra may be exterminated by a determined endeavour, but, be it remembered, it is an herculean task; we trust we have a Hercules to accomplish the feat.

The annual return of the Imports and Exports of Copper, Zinc, Tin, and Lead, during 1856, shows our mineral and metallurgical industry to be in a highly favourable position as compared with the preceding year. In the twelve months ending December 31 last, we imported of COPPER 71,678 tons of ore, 11,124 tons of regulus, and 5331 tons of metal, which includes bricks, pigs, bars, sheathing, &c.; the increase upon ore and regulus being, therefore, upwards of 25 per cent., and the decrease upon manufactured qualities nearly 50 per cent. Our chief sources of supply have been Chili, Cuba, Victoria, Spain, Peru, South Africa, and South Australia; Algeria, Italy, and Bolivia being the next in succession. The figures show that we imported from—

	Ore.	Regulus.	Metal.
Chili	25,794	3592	11
Cuba	19,836	—	—
Victoria	6,969	30	427
Spain	5,683	6	335
Peru	3,468	500	46
South Africa	2,557	—	13
South Australia	1,652	57	763
Other parts	63,004	9937	2207

From the statement of the exports, it appears that we exported 78 tons of ore, and 21,906 tons of manufactured copper, the principal ports of shipment being London, Liverpool, Swansea, and Hull. Of the ore, 661 tons went from London to Belgium, and 113 tons to France; 2 tons from Swansea, and the remainder from Liverpool. For manufactured copper, our territories in the East Indies were our best customers, taking 4442 tons; then France, 3991 tons; Holland, 2052 tons; United States, Atlantic ports, 1788 tons; Hans Towns, 1564 tons; and Egypt, 1192 tons. The next in rotation were Belgium, Italy, Brazil, and the foreign West Indies. For foreign copper—France, which took of ore 673 tons; of unwrought metal 431 tons, and 143 tons of manufactured; Belgium, which took 353 tons of unwrought metal; and Holland, taking 100 tons of ore, 23 tons of unwrought metal, and 70 tons of wrought, were our best customers, that taken by other States being merely nominal.

The import of TIN comprised 3464 tons of metal, and 749 tons of ore and regulus. Of this quantity, Holland sent 1524 tons of metal; British territories in the East Indies (exclusive of Singapore and Ceylon), 800 tons; Singapore, 785 tons; Peru, 239 tons; and France, 71 tons; the remainder consisting of a few small parcels, none exceeding 10 tons. Victoria furnished 336 tons of ore and regulus, and Peru 370 tons, no other country giving more than 6 tons. The exports of metal were 1874 tons of British, and 200 tons of foreign, and of foreign regulus 4 tons only, which was sent to France. Of metallic tin, France took 474 tons of British, and 105 tons of foreign; Russia, 346 tons of British; Turkey, 218 tons of British; and the United States, Atlantic ports, 167 tons of British, and 68 tons of foreign.

OF SELLER, we imported 18,213 tons (of which the Hans Towns furnished 11,291 tons; Belgium, 3613 tons; and Prussia, 1747 tons), and of oxide of zinc 235 tons (of which Belgium furnished 192 tons). Our chief export trade has been with our territories in the East Indies, they having taken 1672 tons of British, and 1016 tons of foreign. The only other place with which any considerable business has been done is the British settlements in Australia, amounting to 586 tons of British, and 99 tons of foreign. The total exports were 3155 tons of British, and 2172 tons of foreign spelter, and 15 cwt. of oxide of zinc.

The imports of LEAD consisted of 10,254 tons of pig and sheet, 705 tons of ore, 15 tons of red, 30 tons of white, and 3 tons of chromate. The greater part of the pig and sheet lead we received from Spain (which sent 9407 tons), Belgium, Hans Towns, and Holland. Nearly the whole of the lead ore was from Spain and France, Italy, Belgium, and Holland supplied the white lead; and of the chromate of lead the Hans Towns sent 2 tons, and Hanover 1 ton. Our export trade amounted to 646 tons of ore, 20,868 tons of pig and rolled lead, 2266 tons of shot, 476 tons of litharge, 1845 tons of red, and 2819 tons of white lead; in addition to which we re-exported 566 tons of foreign, nearly all of which went to China and the United States. For British lead, our best customer was Russia, taking 6393 tons of pig and rolled lead, and about 334 tons of other descriptions. The United States, Atlantic ports, took 4646 tons of pig and rolled, and 919 tons of other descriptions. British settlements in Australia come next in rotation, taking 1513 tons of pig and rolled lead, and 974 tons of other descriptions. The East Indies, France, British North America, and Brazil, were also large consumers. It is gratifying to find that the proportion taken by British colonies keeps pace with the general increase, and in some instances even shows an improvement upon the preceding year; whilst in the import trade we gradually become more independent of foreign countries, in consequence of an increased production, both at home and in places under British control.

We cannot yet comply with the wishes of our several correspondents, to furnish more special particulars of the case of misrepresentation with respect to a certain mine, so called, to which we alluded in our Journal of June 20. We then mentioned that it was a case for legal enquiry, and we now learn that "declaration" in the action has been delivered to the solicitors for the defence. It would, therefore, be unjust to all concerned to give precise particulars, lest the case might be prejudiced upon mere *ex parte* statements; and the curiosity of our readers must remain unsatisfied for two or three weeks. It is clear that the trial must go on, and we will, necessarily, give a full report of the proceedings. The withdrawal of the action on the part of the plaintiff would be an admission of doubt of the truth of the charges made; and as they have been alleged so openly and distinctly, and involve important considerations, the non-prosecution of the action would lead to inferences being drawn as to why proceedings had been instituted and afterwards abandoned, which would lay the plaintiff open to severe comment. On the other hand, if the defendants, by acquiescing in the formal claim for expenses merely, made against them, should thus dispose of the present action, their doing so would, necessarily, amount to an admission of the serious charge involved, and would lead to a prosecution in another and more formidable shape. For every reason, therefore, the proceedings already initiated must be fully exhausted, and we trust the result will be the relief of the parties who may have undertaken liabilities on the faith of representations, the falsity of which, while we believe it exceptional, tends to bring discredit on mining.

Those of our readers who have studied the preface of Mr. TAPPING'S *Exposition of the Joint-Stock Act, 1856*, are fully aware of the shortcomings of that remarkable statute, and have long anticipated the bill for its amendment, now under the consideration of a Committee of the House of Lords. The bill now before Parliament proposes to remedy several of the objections pointed out by Mr. TAPPING, and amongst them the repeal of the impolitic 4th section, which provides that—

"Not more than 20 persons shall after Nov. 3, 1856, carry on in partnership any trade or business having gain for its object, unless they are registered as a company under the Joint-Stock Companies Act, 1856, or are authorised so to carry on business by some private Act of Parliament, or by Royal Charter, or Letters Patent, or are engaged in working mines within and subject to the Stannaries; and if any person carry on business in partnership contrary to this provision, every person so acting shall be severally liable for the payment of the whole of the debts of the partnership, and may be sued for the same without the joinder in the action or suit of any other members of the partnership."

The clear construction of the above clause is to prohibit and put down, under the severe penalty of a misdemeanour, all but certain excepted partnerships of more than 20 persons. Now, as cost-book companies out of the Stannaries jurisdiction are not among the excepted companies, so they undoubtedly became illegal after Nov. 3, 1856. The discussion of this subject in the columns of this Journal, some few months ago, attracted the attention of persons in high official positions, and thus it is that no time has been lost to rectify the error, and expunge the arbitrary 4th clause from the statute-book. This it is proposed to do by the 3d clause of the new bill, which provides—

"That the fourth section of the Joint-Stock Companies Act, 1856, shall be repealed, and in lieu thereof there shall be enacted as follows:—If after the passing of this Act more than 20 persons carry on in partnership any trade or business having for its object the procurement of gain to the partnership, then, unless such persons are included within one or more of the classes following (that is to say, are registered as a company under the Joint-Stock Companies Act, 1856; are a company incorporated, or otherwise legally constituted; by or in pursuance of some Act of Parliament, Royal Charter, or Letters Patent; or are engaged in working mines within and subject to the jurisdiction of the Stannaries), each one of the persons so carrying on business in partnership together, contrary to this provision, shall be severally liable for the payment of the whole debts of the partnership, and may be sued for the same, without the joinder in the action or suit of any other member of the partnership."

The difference between the clauses is simply this, that the fourth clause absolutely prohibits certain partnerships above 20 in number, whilst by

the amending clause the members of companies more than 20 in number cannot have limited liability, but each remains, as at common law, liable for the whole debts. Thus, a cost-book company out of the jurisdiction of the Stannaries Court, though composed of more than 20 persons, will be again legal, subject only to what it was obnoxious to before the passing of the Joint-Stock Companies Act, 1856—that is, the payment of its debts by each of its members. No doubt, the late Joint-Stock Companies Act is too cumbersome for a simple mining partnership. We have shown it to be so by argument, and the public have acknowledged it by their constant endeavour to shirk the irritating clause of the Joint-Stock Act. We, therefore, rejoice that the Legislature has taken the sound and politic view it has; and we hope that the amended clause may soon become law, and that the mining community will shortly reap the advantage of our advocacy. We may fairly say that the alteration is mainly due to our strenuous exertions to that end; and it is at least satisfactory that we have again placed cost-book companies upon a safe and legal footing.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

[FROM OUR CORRESPONDENT IN WEST CORNWALL.]

JULY 1.—The last sale of copper ores, for the first half of the year 1857, took place at Redruth, June 25; and on a review of the weekly sales in Cornwall since Jan. 1, the half-year is seen to have been one of almost unprecedented fluctuation in the prices given by the smelters to the miners for ores. The following figures will exhibit the fluctuations referred to:

Date.	Tons.	Standard.	Produce.	Price per ton.	Cop. ore.	Cake cop.
Jan. 1	2518	£150 12	7 1/2	£3 3 6	£112 15	£126
" 8	4337	155 15	6 1/2	7 12 0	114 8	128
" 22	5084	159 17	6	6 15 0	114 8	135
" 29	4233	162 4	6 1/2	7 10 0	118 14	135
Feb. 5	3527	160 18	6 1/2	7 5 0	116 13	135
" 12	4536	154 10	6 1/2	7 9 6	112 19	135
" 19	5206	156 19	5 1/2	6 3 0	108 11	135
" 26	3503	153 16	6 1/2	6 16 0	109 8	135
Mar. 3	2913	150 3	6 1/2	7 8 0	109 7	135
" 12	4817	148 12	6 1/2	7 4 6	106 5	135
" 19	4420	149 1	5 1/2	5 16 6	101 6	135
" 26	3876	147 6	6 1/2	6 9 6	103 10	135
April 1	3593	147 10	6 1/2	6 9 6	103 10	135
" 9	4709	147 4	6 1/2	6 18 6	105 7	135
" 23	5313	150 10	5 1/2	5 11 0	100 14	135
" 30	3579	146 10	6 1/2	6 16 0	104 7	135
May 7	3117	145 2	6 1/2	7 4 6	105 3	135
" 14	4765	145 6	6 1/2	7 1 0	104 13	135
" 21	5001	143 14	6	5 17 0	97 14	135
" 28	4283	142 8	6 1/2	5 19 6	97 12	135
June 4	3700	137 7	6 1/2	5 13 0	92 1	117
" 11	4619	129 8	6 1/2	6 6 0	89 0	117
" 18	5223	133 13	5 1/2	4 17 6	85 0	117
" 25	3065	131 14	6 1/2	5 9 6	87 18	117

The column headed "ore copper" shows the fluctuation in the prices given by the smelters to the miners for as much ore as would make a ton of copper at each sale, according to the smelters' own assays. The decline of prices is thereby much more apparent than by looking at the average standards and produces at each sale. The "ore copper" column shows that at the third sale in each month of Devon Great Consols and eastern ores the price given is generally lower than at the other sales; but this is nothing new. What is more surprising is the immense fluctuation of prices since the beginning of the year, when trade was generally reported to be in a sound and healthy state. There is some truth in the statements made on behalf of the smelters that there has been a great deal of foreign ores selling lately at Swansea, and that the exports of copper in the spring of the year have fallen off, and the home trade experienced some fluctuation in consequence of the state of the money market, and the restrictions such a condition of things necessarily imposes. But with all the allowances which for these causes may be reasonably made, the whole is inadequate to account for the immense reduction of 17. 11s. per ton of ore between Jan. 1 and June 25. If the standard had been the same last week as it was on Jan. 1, the ores which last week sold for 57. 9s. 6d. per ton would have made at least 71. per ton. The reductions in the course of the half-year will be evident to any person without calculation, if we take those weekly sales when the produce was the same as last week—6 1/2.

	Standard.	Produce.	Price per ton.
Feb. 5	£150 12	6 1/2	£3 3 6
Feb. 26	153 16	6 1/2	6 16 0
Mar. 26	147 6	6 1/2	6 9 6
April 1	147 10	6 1/2	6 9 6
June 25	131 14	6 1/2	5 9 6

It is evident, from the above sales of ore of similar produce, that there has been a fall of 17. per ton of ore in the last three months, and a decline of no less than 17. 15s. 6d. per ton since Feb. 5 (the standard being then higher than at the beginning of the year). The only way in which such a very great depreciation can be accounted for is on the same grounds as in former years, that the smelters having a monopoly of the trade in their own hands, and seeing a considerable quantity of foreign ores was about to arrive, wished to purchase them at low prices, and to be enabled to do so they rapidly dropped the standard for Cornwall ores; then, after having purchased and obtained a large stock of cheap ores for their furnaces, they will again raise the price to the consumer, and pocket an immense profit, largely adding to the colossal fortunes the principal firms have already made. The standard will, no doubt, again advance, because if the miners are pinched somewhat more closely they will be driven to act in earnest for themselves, and if they do the smelters may find farewell to their monopoly for ever. I see that the Dublin correspondent of the Journal, June 20, notices the satisfactory working of a double reverberatory furnace belonging to the Mining Company of Ireland, the invention of Mr. Alfred Jenkin. This furnace, it appears, smelts a great deal more than the ordinary furnace, with a less consumption of coal. The writer states that Mr. Adam Murray has thoroughly examined the process, and expressed himself delighted with it. "Indeed," the writer remarks, "such is its simplicity and utility, that the miners need not, unless they be foolish enough to do so, permit the smelters to purchase ore at their own price. The process is applicable to copper as well as to lead, so that it is probable it might be advantageously introduced into Cornwall and Devon, and thus enable the miner to compete with the smelters even in those counties. In Ireland wonders have been effected."

Should the above, or any other improved process be rendered available and advantageous for the miners to adopt, we shall see no more great fortunes amassed at the expense of Cornish mine adventurers, who undertake all the risk of mining, whilst the smelters have no risk at all. They have been taking from the miners during the last quarter considerably more than they did on the average of the whole of last year's sales. The difference between ore copper and cake copper (the buying and the selling price) averaged last year about 22. 12s. per ton; whilst during the quarter ending June 25 the average difference was 27. 10s. per ton. Supposing coals and labour to be about the same, the smelters are now screwing out of the miners about 57. per ton (on fine copper) more than they took to themselves on the average of last year's sales.

I mentioned last week that a valuable testimonial had been presented by the adventurers of Wheal Basset, to Capt. W. Richards, the purser and manager. The following figures (from a local paper) will show the productiveness of Wheal Basset since its purchase from the former proprietors in 1832, when Capt. Richards became connected with the mine:—Expenditure from January, 1832, to the end of April, 1857—labour cost, 251,559. 10s. 7d.; merchandise, rates, taxes, &c., 98,166. 3s. 10d.; dues paid to the lord, 39,816. 4s. 8d.; total, 389,531. 19s. 1d. The profits divided during the same period were 232,960. equal to 455. per 512th share. The outlay in calls was 2624. or 5. 2s. 6d. per 512th share; and the total returns of copper and tin amounted to about 622,000. What an advantage such a mine as this must be to the district. It has paid in the last 25 years about 350,000. for labour, merchandise, rates, and taxes; and yet those who are the blind advocates for the rating of mines would endeavour to make Parliament believe that mines are burdens upon the parishes. It is satisfactory to see that by far the major part of the evidence given before the committee is totally against the rating.

There have been a few shares selling in dividend mines, at reduced prices. Wheal Buller is stated to be looking better, but shares do not advance. South France, about 290. East Basset, 371. North France, 151. These mines are almost certain to go up again; indeed, there are many progressive mines at the present time arrived at such a point of working, and with such excellent prospects before them, that any capitalist

would do well to purchase. Tolvadden is spoken of as a young mine having very good prospects. Rosewarne shares dropped to 35 $\frac{1}{2}$. South Garra, 25 $\frac{1}{2}$. Several of the tin mines are doing well. Great Hewas is becoming increasingly productive. Wheel Kitty (Lelant) is one of the best tin mines in the county. There is a very good report of Wendron Console; and Ding Dong is stated to have improved. If in connection with the sales of tin the produce were published it would not be difficult to show what profits the tin smelters are now making. This would be very desirable, and some opposition to the existing firms would be more desirable still.

THE IRON AND COAL TRADES OF MONMOUTHSHIRE AND SOUTH WALES.

[FROM OUR CORRESPONDENT IN SOUTH WALES.]

JULY 2.—We adverted last week to the information laid under the Coal Mines Inspection Act, by Mr. Mackworth, Government Inspector, against Mr. Crawshaw Bailey and several other colliery proprietors in and around Blaenau. It is unnecessary to recapitulate the circumstances connected with the enquiry, which, as we have already stated, commenced on Friday last, by warrant of a mandamus obtained by Mr. Mackworth from the Court of Queen's Bench. The result was a decision in one case only, the others being adjourned by mutual consent until Wednesday next. The charge was that the boiler used in the Deep Pit Colliery, of which Mr. Bailey is part proprietor, was not provided with a proper steam gauge and safety valve, and Mr. Mackworth stated that on the occasion of his visit to the colliery the safety valve was held down by a large tram-wheel, and the men had not been furnished with proper rules. The doors were red hot, and it was quite impossible, he stated, for the works to be conducted with safety while such neglect was continued. Mr. Bailey's solicitor urged that the works had been managed without accidents for a number of years, and also pleaded in extenuation that the new valve required had been supplied, and, therefore, asked for a mitigation of the full penalty. The magistrates, after some discussion, inflicted a fine of 50s., and costs, and adjourned the remaining cases, to enable the defendants to obtain the assistance of counsel. There are four other charges against Mr. Bailey, and three against other parties, for various infringements of the Act. It is to be hoped the final result of these investigations will be to cause greater watchfulness and care on the part of colliery proprietors, and induce them to be less solicitous about incurring a trifling expense than to save life.

Among the works which have latterly progressed so rapidly are the Rhymney Company's, in the Rhymney Valley. So large is the business now done there, that it is anticipated they will become formidable rivals to the more celebrated Dowlais Works before many years have elapsed. They are situated in the midst of a rich and extensively-producing district, and railway accommodation is not wanting to complete their importance. A vast increase takes place in the operations there every year, and, indeed, every month, and improvements are constantly being made to continue this progress. The proprietors are enterprising men, and, with a good field to work upon, they cannot fail to have their exertions attended with much profit and success.

An important discovery of coal has been made since we last wrote in a district which seemed likely to lose its status, from the fact of the principal colliery there having been supposed to be worked out. The mine we allude to is known as the Gellygaled, and is not far from Cymmer (the scene of the dreadful explosion a few months ago), on the Rhondda Valley. There has long been a portion of the mine regarded as totally barren, and the eastern ground was believed to be entirely destitute of mineral. There has now, however, been discovered a vein of superior coal, varying from 3 ft. 3 in. to 3 ft. 5 in. in thickness, and this is likely to prove very profitable to the owner, Mr. V. L. Lewis. The range of the level course is from east to west, the rise being to the north. The coal is the No. 3, or "Dinas" description, and in an adjoining colliery a fine vein of the same kind has been struck upon. This will have the effect of preventing great losses to the land proprietors around, who were likely to be injured by the suspension of all building works, in consequence of the impression existing that no more coal was to be procured.

An ordinary observer, or a stranger to the habits and the manners of English miners, would, probably, have inferred, from the fearful "accidents," as they are termed, which have occurred during the last two or three years in collieries, that the miners would, on their parts, exercise the greatest vigilance and care. Yet such is by no means the case. Complaints, which never reach the ears of the general public, are constantly being brought before magistrates, and still more privately, before the owners of pits, of the gross carelessness displayed by the workmen with reference to the use of naked lights. The proprietor of an extensive colliery here declares that cases are constantly brought before his superintendent of men smoking while at work, and using, moreover, a naked light. Even in dangerous parts of the mines, where the greatest precaution is recommended, some reckless man may often be found acting in this manner. Can we wonder that the consequences too often are terrific explosions, and a dreadful loss of life? These calamities cause, at the time, a sorrowful sensation among those chiefly concerned, but the effect soon wears off, and matters go on precisely the same as before. There is no class on whom colliery explosions create so little impression as on miners themselves, and, however inexplicable this fact may appear, events which are constantly taking place prove it indisputably. With an utter disregard of human life, both of their own and that of their companions, they persist in following a course which has over and over again resulted so fatally. They refuse to adopt the precautions, such as they are, which are placed within their reach. Doubtless, the preference which is now so generally shown for the naked light rather than for the Davy is the result, in some measure, of the inefficiency of the latter, but, in many cases, an obstinate prejudice has to be surmounted, and if it were possible to invent a lamp which would shed a light like the sun, and be perfectly safe withal, its popularity would be extremely uncertain.

The Iron Trade here is brisk and active. Manufacturers have, at present, more orders in hand than they can possibly execute within the prescribed time, and thus activity seems likely to continue for some time. Prices have not sufficiently altered to require particular remark.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

[FROM OUR CORRESPONDENT IN CHESTERFIELD.]

JULY 2.—The Iron Trade continues in a healthy state, and the prospects of business for the next quarter are highly favourable and encouraging. It is not doubted that any alteration will be made in prices, and this step has given increased firmness and activity to trade. The demand for manufactured iron from the East, and the colonies generally, continues good; whilst the home trade is gradually improving. There is a good demand for rails, railway springs, and railway ironwork generally. This branch of the iron trade is making rapid progress in Sheffield, and three or four firms are now fully engaged in the manufacture of an enormous quantity of this description of ironwork. Bars are in good request, and there are numerous enquiries for plates. It is a satisfactory indication of the progress of the iron trade in Yorkshire, that within the last few years business has been nearly doubled in extent. It is also worthy of mention that the plates used in that monster of the seas—the *Great Eastern*—were made by a Yorkshire house, Messrs. Beale, and Co., Park-gate, Rotherham. Messrs. Guest and Chimes, brassfounders, Rotherham, are building more extensive works, to meet the requirements of a greatly extended trade.

On the 26th of the present month Sheffield and the neighbourhood will exhibit specimens of its skill, not in the manufacture of articles of cutlery, but in the make of agricultural implements, which are to be shown in connection with the great poultry exhibition. Messrs. Davy Brothers have already earned laurels at the Vienna show, they having carried away the gold medal for the best agricultural implements.

There is no material alteration in the Coal Trade. The demand continues depressed for domestic consumption, but the enquiries for manufacturing purposes continue numerous, and prices tolerably steady. There is great progress making in the export trade, which is rapidly extending itself, and all those points of outlet where such a trade can be conducted with advantage. The Manchester, Sheffield, and Lincolnshire Railway Company having disconnected itself with the London and North-Western, and formed an alliance with the Great Northern, it is possible that new arrangements or modification of existing traffic contracts may be made with great advantage to the companies and the coal owners generally. The valuable beds of coal on the estate of Sir R. Sitwell, Bart., of Renishaw, near Eckington, have been let to Messrs. Wells, the coal masters, and borings have been made, and the necessary arrangements effected for working an extensive coal traffic in that district. A shaft is being sunk in close proximity

to the main line of the Midland Railway, and, we understand, it is intended to make a mineral branch in connection with it.

The operations at Lund Hill for the recovery of the bodies are going on favourably, and in the course of a fortnight or three weeks the whole of them will, in all probability, be recovered. It is not expected that there are more than 10 bodies to be recovered up to this time.

A number of specimens of Chinese cutlery have been on view this week at the School of Art, Sheffield. They consist of carpenter's tools, turning-lathes, and other implements, contributed by Sir John Bowring.

We have alluded on several previous occasions to the mineral wealth of Derbyshire, not only as regarded its metals, but also in respect of its stone and lime deposits. A company has been formed for working the Hop-ton Stone Quarries. The capital has been subscribed, and the company would have been in working operation now had it not been for a long and tedious valuation which is now going on, and not expected to be finished for the next month. The prospects of the company are exceedingly good, and, with judicious management, they will be enabled to pay the proprietors from 20 to 30 per cent.

The Stockport, Disley, and Whalley Bridge Railway Company have obtained the sanction of the shareholders to extend the line to Buxton.

Lead mining operations are going on favourably in North Derbyshire. The Eyam, as the king of mines, deserves first mention. The mine is yielding an immense quantity of ore, and the men of North Derbyshire, who some time previously thought little about its prospects, are perfectly astounded, and they begin to calculate what they might have gained had they not been in such a hurry to sell.

Mining operations have been commenced at the North Derbyshire (Wren Park) Mine, and a cross-cut is being made. The mine is looking well, and the company are more sanguine than ever of its prospects.

The Peak United is going on as favourably as can be expected. The level is being worked on very low terms, and, as no engine-power is needed, the mine is expected to be in a good position shortly.

We hear of no movement in North Derbyshire with respect to the Rating of Mines' Bill among the miners themselves, but as the Hon. G. H. Cavendish is on the committee, we have good hope that he will not permit an injustice to the perpetrated.

THE IRON AND COAL TRADES OF STAFFORDSHIRE.

[FROM OUR CORRESPONDENT IN WOLVERHAMPTON.]

JULY 30.—The quarterly meetings in this district take place next week at the principal towns in succession. The excessively hot weather which prevailed up to a day or two ago has caused a considerable diminution in the make of finished iron, the men being unable to work in consequence of the great heat. The Iron Trade at this season of the year, and frequently at the close of a quarter, is quiet, pending the completion of purchases of pig-iron, and entering into contracts for the ensuing quarter. This will to some extent account for the degree of slackness which is felt at the present time. Many of the second-rate makers are accepting lower rates for finished iron, and some of the leading houses are scantily supplied with orders. The nominal price of pigs may be stated as 4 $\frac{1}{2}$ 2s. 6d., but a superior pig may be had for 4 $\frac{1}{2}$ s. by parties whose bill is equal to cash, and prices are quite unsettled. There is a tendency to abstain from purchasing largely, on the supposition that prices may recede during the quarter, and it is anticipated by many that a decline of at least 2s. 6d. a ton from the prices which ruled at the beginning of this quarter must be secured to by makers of pig-iron, unless an increased demand should spring up shortly. The meetings next week will prove whether this anticipation is likely to be realised. Several considerations encourage the expectation that a fair demand will be experienced during the quarter. The Board of Trade Returns for May show a steady increase in the export of iron during that month, of which a considerable portion is due to the increased exports to the United States. Stocks are confessedly low everywhere, and the necessity for iron rapidly augmenting. In this state of things it may fairly be calculated that, though orders may be held back before quarter day, at least a steady demand must be experienced. The probability of a further fall in the rate of discount will also tend to improve the demand for iron, and to encourage larger purchases; and it is almost impossible to believe that the reduction in the American import tariff can fail to augment the demand from that country.

Coal maintains its price, and appears likely to do so throughout the summer, as the laying in of winter stocks will commence shortly.

The general trades of the district are quiet. The transition from the summer to the winter demand is experienced by manufacturers at this part of the year; and, probably, another month will afford greater indications of briskness. The London trade is particularly quiet just now, as is usually the case at this season.

STOCK, MINING, AND RAILWAY SHARES IN IRELAND.

[FROM OUR CORRESPONDENT IN DUBLIN.]

JULY 2.—The stock and share markets, consequent on the news from India, were very flat and heavy this week, and prices declined. Business, too, was limited; but railway shares were maintained in price, the principal alteration being in Midland Great Western shares, which rose fully 2 $\frac{1}{2}$ per cent. The following are the latest quotations, as usual:—Consols, 92 $\frac{1}{2}$; New Three per Cents., 91 $\frac{1}{2}$; Hibernian Bank, 32 $\frac{1}{2}$; Royal Bank, 22 $\frac{1}{2}$; Mining Company of Ireland, 15 $\frac{1}{2}$; Wicklow Copper Mine, 31 $\frac{1}{2}$; Belfast and Ballymena Railway, 49 $\frac{1}{2}$; Belfast and County Down, 31; Cork and Brandon, 10; Dublin and Wicklow, 5 $\frac{1}{2}$; Midland Great Western, 50 $\frac{1}{2}$; Great Southern and Western, 105 $\frac{1}{2}$; Killarney Junction, 10.

The half-yearly meeting of the Mining Company of Ireland was held today. The attendance was good, and the proprietors never before seemed so satisfied with the prospects of the concern than they did on the present occasion. Scarcely a question was asked in explanation of anything stated in the accounts, or report, and whatever was made the subject of enquiry was answered by the Chairman in a manner which at once carried conviction to the minds of those present. The report of the directors and the statement of accounts were both highly satisfactory. At the Knockmahon Mines 2450 tons of copper ore were raised during the half-year, the gross value of which was 29,822 $\frac{1}{2}$ s., leaving as profit 6590 $\frac{1}{2}$ s., showing a greater profit on a smaller quantity of ore when compared with the previous half-year, this being attributable to the high price of copper. At the Luganure and Glendalough Lead Mines there was an increase of produce of 50 tons, 835 tons having been raised, valued at 10,539 $\frac{1}{2}$ s., leaving a profit of 3091 $\frac{1}{2}$ s., independent of 635 $\frac{1}{2}$ s. expended on dressing floors, buildings, and other permanent improvements. The stamp-machine and water-wheel now in course of construction at Glendalough will greatly increase the value of the concern. The Glendalough property itself has been enhanced in value to a considerable extent. A quantity of land has been reclaimed, and 150,000 trees planted. The Slieveadagh Collieries produced a profit of 4059 $\frac{1}{2}$ s.; 24,783 tons were raised during the half-year, but 29,443 tons were sold, thus reducing the amount on hand. At the collieries an increased demand had sprung up for the culm in the agricultural districts, and, besides the amount from Slieveadagh, 3079 tons of culm were sold from the Lisnahan Colliery, producing a profit of 173 $\frac{1}{2}$ s. 6d. At the Ballycorus Works, over the smelting portion of which Mr. Alfred Jenkin so efficiently presides, there was a profit of 826 $\frac{1}{2}$ s., after writing off for depreciation 147 $\frac{1}{2}$ s. Two furnaces are at work, and during the half-year 609 tons of ore were smelted, with a return of 461 tons of lead, showing an average produce of 69 per cent., the produce of fine silver being 3775 oz. It is intended, in the ensuing year, to considerably extend the operations at these works, the demand for shot being more than the company can supply. It is proposed to erect a new shot tower, at an expense of over 2000 $\frac{1}{2}$ s., a new chimney and flue, at a cost of about 2500 $\frac{1}{2}$ s., besides houses for the superintendent and workmen, and other necessary buildings, which will cost about 1000 $\frac{1}{2}$ s. It is also intended to erect a steam-engine at the Ballycorus Mine, and also at the Ballydeobh Mine, where the indications fully warrant an outlay for this purpose. The accounts were this half-year presented in a new and very simplified form, not entering into details, which it has always been found impossible to do heretofore satisfactorily, in consequence of the very extensive and varied nature of the company's operations. Indeed, in this company details are unnecessary, as the shareholders have at proper times full access to all the books, and can then at once see how a profit or loss has arisen. The mineral produce at present on hand is valued at 30,295 $\frac{1}{2}$ s. 1d., and the available funds are 13,895 $\frac{1}{2}$ s. 10d. A dividend of 15 per cent., free of tax, was declared, equal to a sum of 10,500 $\frac{1}{2}$ s. Such companies as this would soon raise the character of the country in an industrial and manufacturing view.

An error crept into my remarks of last week, where I stated that the presses used by Mr. Hays could turn out each 1 ton of compressed peat per day. This should have been per hour, or 24 tons per day, if the presses worked continuously. The following is a short extract from Dr. Letheby's report on the compressed peat:—"The compressed peat appears to possess most of the qualities which are referred to by the Admiralty Commissioners as the essentials of a good fuel, for it burns quickly, and, therefore, produces steam in a short time. It possesses tolerably high evaporative power; it is not bituminous, and, consequently, does not evolve opaque smoke while burning; it is not likely to be broken by attrition; it possesses a form well suited for stowage; it is entirely free from sulphurets; and it is not liable to spontaneous combustion." I will, on another occasion, take care to send you Dr. Letheby's report on peat in full, as it will show the immense value to be attached to the peat bogs of this country. The Wicklow Copper meeting will be held this day week.

THE GOLD QUESTION AGAIN.

[FROM A CORRESPONDENT.]

There appears yet to be so much doubt about the existence of gold in remunerative quantities being obtainable in this country, and in Ireland, that it becomes a matter deserving serious attention. The principal authorities on the production of gold appear to hold views entirely antagonistic, the one asserting gold is not found except in a metallic state, the other vehemently assuring us it exists in a variety of forms, particularly oxides. Now, either the one or the other are certainly greatly deceived, or are deceiving themselves. Messrs. Squire, Calvert, Readwin, and others, all cry "Eureka," and show specimens of quartz, wonderfully studded in some instances with "globular gold"—that is to say, or rather they say, by undergoing their respective processes the gold existing in the quartz in the state of oxide, and, therefore, non-metallic and invisible, is acted on and becomes metal, after which it is easily amalgamated or collected by any ordinary proceeding. The pieces we have seen certainly show decided proofs of these statements. The most sceptical cannot doubt, when he breaks the stone and discovers the globular gold, that it could have been placed there by no other hand than Dame Nature.

Now, the question to us, and we think to the commercial world, is "Will it pay?" All respond "Yes, and handsomely." The man of the world enquires, "Why do you not get to work on a small quantity first, and proceed gradually, as every tradesman would do? Keep the secret to yourself, and if it be so profitable as you represent, there can be no difficulty about the matter." But this mode of action does not seem to suit the men of gold. They want a large capital subscribed to purchase their patents and secure properties, suspected at first, but afterwards to be proved, by their inspection and experiments, to contain the precious metal.

Now, public feeling, although it may be influenced by the late gold delusions and deceptions, should not be so decidedly prejudiced as not to give the operators a fair trial. If they can accomplish on a large scale what they state they are able to do, and they certainly offer fair presumptive evidence in their laboratories, the question would be soon and for ever at rest. At the same time, it is preposterous to suppose that, under all circumstances, the public will come forward and subscribe some thousands to advance the interest of a party, without some more definite, well defined project than any hitherto presented.

If our experimentalists, who have been continually promising great things, would only show the result of their processes on a few tons, instead of a few grains, no amount of capital that would be deemed necessary would be withheld, and a remuneration for their services secured, which the most ambitious or avaricious amongst them could possibly desire. The cost, according to their own showing, would be but trivial. Their reward, how great? Surely the object is worth the effort.

We commend these remarks to the parties most concerned, as they may rest assured considerable difficulties will be experienced in raising a large capital for such purposes. Delays are dangerous to them, also. Time must be of consequence, as every year's procrastination is so much deducted from their golden harvest.

BRISTOL SCHOOL OF MINES.

The first annual examination took place on Monday and Tuesday, before Mr. W. W. Smyth, M.A., F.G.S., &c., who was assisted by Messrs. G. C. Greenwell, M.E., and J. Hedley, Government Inspector of Coal Mines. Besides the general pupils, several underground agents from the Bristol and South Wales collieries presented themselves for examination in mining subjects. These were for the most part examined orally, and by their answers to the very important and telling questions respecting the direction and management of coal mining operations, showed generally a tolerable degree of intelligence, and in some cases a very satisfactory knowledge of some of the more important branches of the practical part. The answers by the pupils were given in writing until the afternoon of Tuesday, when, for upwards of three hours, verbal answers were given to the questions from Messrs. Smyth, Hedley, and Mackworth, chiefly on mineralogy, the chemical and local differences of coal, the management of lamps, the chemical and mechanical properties of gases met with in mining, and the laws and practice of colliery ventilation. Most of the pupils have not been in the school longer than about four months, and some of them have had but limited means of previous education, yet the progress they had made in an acquaintance with the subjects taught in the Mining School was such as to elude from the examiners some very highly commendatory remarks. The course of subjects of examination were—surveying, levelling, and plan drawing; mining and machinery; working coal and other minerals; ventilation and prevention of accidents; geology and mineralogy. The result of the examination will be made known until the commencement of the next session of the school, when prizes will be awarded to the most deserving and successful of those examined. It may well be supposed that the promoters and managers of the school have been looking forward with considerable anxiety to the occurrence of this, their first annual examination. No merely casual observer could fail to notice the earnest satisfaction manifested by one, to whose indefatigable zeal and noble generosity so much is owing, when he remarked, "I am very glad it has passed off so well." Now that the school has become somewhat established and more generally known, it is not too much to expect that the number of those who give it their countenance and support, by contributions and by sending pupils, will be proportionately increased. Several new pupils have already been named as wishing to attend the lessons and lectures on mining during the next session, so that in a short time we may expect to see the students' benches in the classroom for mining entirely occupied. In concluding the examination on Tuesday evening, Mr. Smyth very appropriately remarked that no branch of study or industry formed such an extensive field for thought as that of mining. The man who spent a life-time in its study and practice would be almost sure still to learn something new from every mine he visits, or from every overseer and captain with whom he was brought into contact. He was happy to have had the pleasure of doing the little service for this school which had just been acknowledged, as it was the only one in a mining district, except the one at Truro, that was in actual operation. Much was talked of and written about in other places, but in Bristol there was really something doing; and when so much had been done in so very short a time, it was only fair to suppose that something very wonderful would be accomplished in the course of two or three years.

COFFER ORES.—Messrs. Reid and O'Neil have patented a method of treating metallic ores to obtain copper: this invention relates especially to means by which copper can be economically obtained from the poorer kinds of ores containing that metal, such, for instance, as contain only from 1 $\frac{1}{2}$ to 3 per cent. of metal; but the improvements are also applicable to the treatment of richer ores. They first reduce the ore to a moderately fine powder, by preference such that it will pass through a fine sieve, the meshes of which are regulated according to the hardness of the ore. This reduction of the ore we effect by any ordinary crushing or grinding apparatus, and while the ore is in process of reduction we mix (by throwing in with it) crude kelp (or the component parts thereof when in combination), the quantity of which is regulated according to the percentage of sulphur in the ore, but generally speaking, ten pounds to every hundred pounds of ore is found sufficient, which quantity, however, may be varied. If, however, the ore be reduced to powder by the ordinary stamps, through which it is passed by the aid of a current of water, the ore so pulverised may be collected in heaps and allowed to become nearly dry, when powdered kelp (or the constituent parts thereof in combination) will be mixed with it, and the mixture treated as in the next operation; the combination of ore and kelp (or its constituents) obtained in this slightly damped by sprinkling it over with water, keeping it continually turned over till the water has touched every part and the heap of ore is damped throughout. This part of the operation should be done carefully, as too much water in the ore would cause it to agglutinate in the furnace, and prevent its complete oxidation in the next process. In case the ore from the stamps (as above mentioned), when mixed with its proper proportion of kelp (or the constituent parts thereof in combination), is found to be too wet, it may be spread out and turned over until the excess of moisture present has evaporated before it is exposed to the action of fire in the furnace; we then place the mixture of ore and kelp (or the constituent parts thereof in combination) in a reverberatory furnace, which we construct in such a manner that the admitted air may play on the surface of the above mixture. This admixture is made level on the bed of the furnace by means of rakes or rables introduced into the working or side holes thereof. The heat of the furnace is now slightly raised, the ore becoming oxidised as the heat increases. During this part of the operation the surface of the ore and kelp (or the constituent parts thereof in combination), exposed to the action of heat and air, should be continually renewed by means of the rakes or rables. When, by examination, the ore and matters are found to be free from moisture, we raise the heat to a dull red for three hours or more, until it is found by experiment that no more sulphurous acid fumes are disengaged, when this part of the operation will be completed. The sulphuric and other acids generated in the furnace form a compound sulphate of copper, the oxidised mixture of ore and kelp (or the constituent parts thereof in combination) is placed whilst red hot into vessels containing boiling water, in which the boiling is continued until all the metallic salts are dissolved. The solution so obtained is allowed to settle, and the clear supernatant fluid drawn off whilst hot, and run into tanks or reservoirs containing soap or other iron, which decomposes the solution, and metallic copper is precipitated; the precipitate is to be removed in any suitable manner, and melted and refined in the usual way.

RATING OF MINES.

TO THE EDITOR OF THE MINING JOURNAL.

Sir,—At length we have an explanation of the cause why the Miners' Committee are so inactive. We are told by "Honi soit qui mal y pense" that they are watching first one break of their opponents' chain, following out the link, &c., and waiting to allow the public to perceive that Mr. Kendall has made out no case for imposing rates on the royalties of mines; in fact, they are merely watching the evidence. If this be correct, there is no need of a committee being appointed for such a purpose, as I presume that there are but few interested in mining who are not doing the same thing. Your correspondent tells us there are thinking men on the committee. So said the sailor of his parrot: "True, she will not speak; but then what a thinker she is." Now, for my part, I cannot see how the miners' cause can be forwarded even though we have a committee of thinking gentlemen to watch over our interests, and "Honi soit qui mal y pense" to interpret their thoughts. I know not whether he may be in their confidence or not; hitherto they have made no sign as to their intentions, and I must be left to believe that, being honoured, as he apparently is, by their acquaintance, by some momentary magnetic influence he has been able to divine their purpose, and hence the solution has arrived at their indefatigable vigilance. They certainly must be pleased at the compliment he appears to pay them. The comparison he seems to draw is, that they are like a party of policemen, who see a burglar about to be committed, but do not interfere, because they know the door is too strong, and the jemmys and other housebreaking implements used by the thieves too weak to allow an entrance to be effected, and, therefore, as it is the least trouble to themselves, they allow the attempt to be made.

If this be the case, your friends, I say, "Give me from my friends," for no one yet has said so much of the committee as their injudicious advocates, "Honi soit qui mal y pense." I, Sir, have endeavoured to elicit what steps they were about to take in furtherance of the cause they proposed to protect. I will not accuse them of the bad taste of covertly endeavouring by a side wind to exonerate or to palliate their apathy; but I do say that if they are now silent they will endorse all that has been said about them, and must rest content with having attained the fame of great thinkers and no doers. Their motto cannot be "Deeds, not words," but must be "Fondle well." I believe the period has now arrived when further appeals are not necessary, and I trust that now we are provided with watchmen we shall be able to obtain some who will act more energetically, so that each can harmoniously work in their several departments—the one party sleeping and thinking, as the former guardians of the metropolis were wont to do, the others active and working.

I have no wish to qualify myself as a censor as to the manner in which the funds subscribed last year have been expended. I am willing to believe—nay I would almost avow—that all money raised remains now intact, and probably more so, for no one can have been incurred for thinking. Although this may be a wearisome, tedious operation, I cannot conceive that it can be very expensive, more especially as I am at a loss, from your correspondent's letter, to glean whether they have been thinking conjointly or separately. We are told there is also a lawyer, which piece of information we are all previously well aware of; but we are not informed whether he is a thinking man; indeed, the sentence would lead us to infer that he is not—"There are thinking men on the committee, and there is also a lawyer." How pleasant meetings must be. I can imagine Mr. Hancock with the committee, waiting to know what decision is to be arrived at; he sitting there silently, while the rest of his colleagues are solemnly plunged in thought. Dean Swift, in his clever satire of *Gulliver's Travels*, tells us that in one of the islands, if his memory serves me right, that of Sapientia, the philosophers were in the habit of falling into such deep reveries that they forgot all subsidiary affairs, and were obliged to be aroused by people who were employed for the purpose, these being provided with bladders attached to a stick, which were flapped under their noses whenever they uttared into utter forgetfulness. I will not presume to state that such is requisite with the Miners' Committee, but I again reiterate, they have shown a callous and inconsiderate neglect of our interests, and complete disregard to the opinions of the working men on this subject. It is only, Sir, through the medium of your Journal that our complaints can go forth to the public at large. An old adage says "Heaven helps those who assist themselves." Let us remember that, and on the present occasion set upon it. The evidence adduced last week, especially that of the practical men, who were examined, has told greatly in favour of the non-rating of metallic mines. Cornishmen have still an able advocate in Mr. Schneider. We must not, however, put our trust in a single man. This is not a question between adventurers and lords only, but one affecting the whole metallic industry of the United Kingdom. Whatever inactivity there may be in some quarters, let the operatives and adventures be up and doing. CAPTAIN REDRUTH, June 30.

THE PIG-IRON TRADE—"WARRANTS."

In the Mining Journal of June 16, we alluded to an action brought against Messrs. Connal and Co., of Glasgow, for issuing "warrants" not referring to particular parcels (a procedure generally sanctioned by the trade, and which has been in practice for many years) by Messrs. Bailey Brothers and Co.; and in consequence of the result of the trial a meeting of the trade has been convened by Messrs. Connal, for the purpose of considering the propriety of adopting a new form of pig-iron "warrant," to ensure identification and security. Mr. Michael Connal explained that their "warrants" in circulation represented 52,000 tons, of which only 225 tons were in transit, the remainder being all in store. The total stock in the yards amounted to 54,834 tons, and for the excess of stock over "warrants" in circulation the documents had not yet been demanded. There was a discrepancy between the particulars of the stock as to brands and quantities, and the particulars of the original consignments, as represented by the "warrants." The system by which the stock has thus become dislocated had been pursued for 12 years with the sanction of the entire trade, and consisted in the substitution of one brand for another in the purchase and sale of g.m.b.; thus, if the "warrant" was for 30 tons No. 1 Connal, and 30 tons No. 3 Carnbroe, the holder might apply for 300 tons No. 1 Langdon, 100 tons No. 1 Govan, and 200 tons No. 3 Summerlee; and the custodian was understood by the trade to be competent to limit the application of the "warrant" to particular parcels and particular brands. It is proposed by the new arrangement to issue "warrants" for particular parcels, and for delivery at a particular port, and thus to leave it for the party wishing to determine what portion of his iron to warehouse at Port Dundee and at the terminus. For the convenience of exchange, the "warrants" should be of 100 tons, as suggested in their circular of 1853. With reference to "warrants" in circulation, they (Messrs. Connal) had come under an obligation, and would fulfil it. Another form of "warrant" was proposed by Messrs. Bailey Brothers, and which they urged should be exchanged for those now in circulation. A committee was ultimately appointed, to consider and confer with Messrs. Connal upon the subject, and to report the result to a future meeting.

A highly important discovery in electric science has been made by Mr. Reid, of Greenham-house, City, by which the cost of telegraphic communication with distant stations will be diminished to an extent almost beyond belief. The Great Atlantic Telegraph Company have constructed at Greenwich a monster battery for sending messages between England and America as soon as the cable shall have been laid. It consists of 40 pairs of platinumised silver and zinc plates, and presents an immense surface to the influence of the exciting fluid, and has cost the company about 25,000l. It appears from a series of experiments made by Mr. Reid that by a single pair of plates the same amount of work may be performed, by having currents of electricity with his zinc battery through 1250 miles of the transatlantic cable, which now lies at Birkenhead, the cost of the battery being 3d., which shows a wonderful contrast as compared with the company's apparatus. A battery of 504 plates had been in constant use for testing the cable, and the whole was found to be perfect, but Mr. Reid was desirous of making some further experiments to test the power of different batteries, and amongst others tried the effect of the month battery, with the result given. He assistant placed a plate of platinum and one of zinc in his mouth, each being three-sixteenths of an inch square, and connected the current produced by the zinc plate to pass through 1250 miles of cable, the galvanometer was deflected 8°, and although the experiment was made many times, the same result was invariably obtained, which is a most unusual occurrence. There can be no doubt that this discovery will cause electrical engineers to pursue an entirely novel train of thought in their future researches.

RAILWAY TRAFFIC.—The Traffic Returns of the Railways in the United Kingdom for the week ending June 27, amounted to 500,930l., and for the corresponding week of 1856 to 464,910l., showing an increase of 36,020l. The gross receipts of the eight railways having their termini in the metropolis amounted for the week ending as above to 210,783l., and for the corresponding week of last year to 200,591l., showing an increase of 10,192l.

The increase on the Eastern Counties amounted to 1738l., on the Great Northern to 547l., on the Great Western to 3693l., on the London and North-Western to 5704l., and on the South-Eastern to 840l.; total, 13,567l. But from this must be deducted 77l., the decrease on the London and Blackwall; 879l. on the London, Brighton, and South Coast; and 1430l. on the London and South-Western; together 2376l., leaving the increase as above 10,191l.

The receipts on the other lines in the United Kingdom amounted to 290,147l., and for the corresponding period of 1856 to 264,318l.; showing an increase of 25,829l. In the receipts of these lines, which added to that on the metropolis lines makes the total increase 36,020l., as compared with the corresponding week of 1856.

THE LAKE ONTARIO AND HUDSON RIVER RAILROAD.—A company has been formed to carry out this line, now in the course of construction, which will unite the eastern end of Lake Ontario at Sackett's Harbour with the Hudson River at the head of tide water at Albany and Troy, uniting in a direct line the great chain of lakes, or inland seas, with the Atlantic Ocean at New York. The section of country traversed by this line is the north-eastern portion of the great State of New York. The length of the line, with its branch to the iron mines of the Adirondack, will be about 200 miles. Contracts have been entered into for its construction, including the rolling stock, rights of way, and stations, the whole amount not exceeding 6000l. per mile, which is less than the average cost of railroads in the United States. It is expected that the eastern division of 90 miles will be completed by the 1st of October next, and the whole line in eighteen months. The line and its proposed branches will not only unite the great western lakes with the seaboard by a direct and advantageous route, but will also bring the city of Montreal and the Grand Trunk Railway of Canada into easy communication with New York, thus materially shortening the distance over the line at present in use. There are many advantages connected with this company, to which we shall allude in our next.

MONSTER BLAST.—On June 23, at the Penderyn Limestone Quarry, the property of Mr. Francis Crawshaw, five tons of powder were exploded, and dislodged 140,000 tons (ascertained by actual measurement) of limestone, and sent and shook a further quantity now hanging, computed at 60,000 tons, making a total of 200,000 tons. The quarry had a break 48 yards high, and almost perpendicular; at the base a drift was driven of which a shaft was sunk, and a chamber cut at the bottom for the reception of the powder; this was fired by a fuse 38 yards long, which took, from the time the match was applied, 32 minutes to ignite the powder. The burning of the fuse in the quarry was timed by another at a safe distance, and as this burnt the anxiety became more and more intense. For the last few yards burning there was breathless silence until the explosion took place, when the cheering was immense. The excavations, &c., were made under the direction of Mr. Crawshaw by his agents on the works, to whom great credit is due for their unflinching exertions.

WEEKLY LIST OF NEW PATENTS.

GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.—W. ROBERTSON, Glasgow: Improvements in pistons, and apparatus connected therewith.—A. COUTANT, Paris: Forging and rolling iron wheels for railways.—J. CROOKLEY, St. Helens, Lancashire: Machinery for grinding and smoothing glass, marble, and other substances.—W. HART, Brigg: Signal lamps.—J. STICKLEY, Manchester: Water gauges.—W. HALL, Chelsea: Rolling iron and steel.—A. V. NEWTON, Chancery-lane: Improvements in the manufacture of iron.—J. COX, Liverpool: Railways.—H. BLAKELEY, Bonn-on-the-Rhine: New mode of preparing coke for metallurgical purposes.—W. H. WALKER, Chancery-lane: Electric deposition of metals and metallic alloys.—R. WRIGHT, Brighton: Steam-boilers.—W. WRIGHT, Newcastle-on-Tyne: Apparatus for feeding fires and furnaces with fuel.—A. FOLSON, Boston, U.S.: Construction of tunnels or ways under water.—E. BARRETT, F. MATTEUCCI, Florence: Apparatus for obtaining motive power from gases.—R. MURPHY, Colford: Manufacture of cast-steel.—C. MACK, Alva, Ayrshire: Obtaining motive power.—T. HARRISON, London: Self-acting doors and gates.—W. E. NEWTON, Chancery-lane: Puddling iron, and furnaces and apparatus employed for the purpose.—F. LEVICK, J. JAMES, Cwm Celyn and Blaith Ironworks: Construction of hot blast stove.—W. A. EDWARDS, Camberwell: Apparatus for separating iron and other matters from ores and other substances.—G. F. CLARK, Newark, U.S.: Improved safety valve for steam boilers.—T. WARD, Great Bridge: Improvements in the manufacture of strip and hoop iron.—W. J. THOMPSON, North Shields: Machinery for preparing small coal and other matters to be used as fuel.—E. V. BARNARD, Northcote: Means employed for burning fuel and in the distribution of heat.—J. MORRIS, Clapham: Connecting the rails of railways and supporting same.

MANUFACTURE OF IRON.—Mr. Christopher Binks has patented some improvements in the manufacture of iron, the chief object of which appears to be the introduction of steam into the iron, and the expulsion of the sulphur, phosphorus, &c. For this purpose, he impregnates the molten metal, by the pneumatic (Bessemer) process, with cyanogen compounds, which vary according to the iron treated and the quality required.

Mr. Henry Bessemer has patented the use of an ordinary puddling furnace, beyond which is a small chamber for melting the metal; behind this converting chamber is a third, communicating with the chimney, for treating the slag, formed in the puddling furnace, which is conveyed to this third chamber by a suitable channel. The chimney is high, so as to ensure a good draft.

Mr. Andrew Barclay, Kilmarnock, Ayr, proposes to manufacture iron direct from the ore, by employing a peculiar description of furnace, in which, after the metal has been melted in one part, it falls into another part, which takes the place of a puddling furnace. The raw ore, as it comes from the mine, is calcined as usual, but with more coal, so that it may be more highly carbonised.

SECURING THE ENDS OF RAILS.—Mr. R. Butterworth, Chelsea, proposes to take out two semicircular pieces from the ends of the rails, between the heads, and to have a circular bolt to keep the rails in position. In case of the joint requiring to be made at a chair, the bolt would not project beyond the rail, and would be kept in place by the wooden key; when the joint occurs elsewhere, the rails are fixed with the ordinary fishes, the centre bolt fitting into the semicircular spaces.

Mr. T. F. Joyce, Birmingham, proposes the use of a casing to the rail end, so that one piece of metal acts as a fish for both sides of the rail, and the bolts keep the whole casing close to the under side of the rail.

RAILWAY SIGNALS.—Messrs. Irlam and Phillips, Newton Heath, Manchester, propose an improvement in giving signals or alarms on railways, whereby an advancing train is made to give notice to a following train when it has progressed a certain distance; this is particularly beneficial when applied to tunnels, to prevent the entrance of one train before the exit of the preceding. The machinery consists of a lever joined to the rail, or to any fixture near the rail, which is depressed by the wheels of the locomotive engine or carriage, this lever gives motion to a shaft, which is connected by levers and wires to another similar lever placed at the required distance, and to a rod or shaft supported by a signal post, which is furnished with a lamp, semaphore, bell, or other agent to give the required signal or alarm. By this arrangement the counterweights hitherto required are dispensed with. A modification of this plan may be employed to give notice when a train is approaching a station; the lever joined to the rail above referred to is placed at the required distance from the station, and is connected by another level and a shaft and a wire to a signal post at the station; when the train passes, the action of the lever communicates the notice to the signal, and the train remains on the signal until it is turned off by the man at the station, or by the action of the train, if required.

MURIATIC AND OTHER ACIDS.—Mr. Joseph Jones, of Bolton-le-Moors, has invented some improvements in the manufacture of muriatic and other acids. In each of the acid frames of wood or of iron, or of any material which is not acted on by the acid, he introduces a coil of wire, next to the aluminium is a coil of lining of gutta percha or other non-conductor; the outer is the ordinary slate or flag frame. Through the tower or towers is a shaft of aluminium suspended on branches in the frame, and leaving a space below, to the shaft are sentinels of aluminium, and this shaft communicates with a galvanic battery on the outside. Muriatic acid, being volatile, is suspended in water; to accomplish this, on the summit of the tower is water in a basin, and surrounded by a freezing mixture (original), when the muriatic acid is introduced, the water is frozen, and the acid is suspended in the water, and on a sufficient quantity of the gas being introduced, and the frozen water descending, to absorb the heat and condense the muriatic acid, which is quickly suspended by the water in its descent. Contemporary is a current of galvanism, which aids the condensing of the acid gas, but prevents the decomposition of the water in which it has to be suspended, which is thus imperfect and of little strength, as by the present method the gas has to traverse several towers, and then go up and down. In another tower, the gas is introduced, and the water is sentinelled, the course is increased by one-third with tubes of aluminium turning round the shaft, and the electric power is increased. The greater the power of electricity the purer the acid.

MANUFACTURE OF METAL CASTINGS.—Messrs. John Jones, of Middlesbrough, and E. Jones, of Liverpool, provisionally specified some improvements in the manufacture of metal castings. The rammer employed is worked by a cylindrical gripping-box, fitted with three or more wedges, acted upon by a spring and forked lever. The whole description appears highly confused, and can only be understood by constantly referring to Law and Inglis's patent of 1853. The complete specification was not filed, but the process is said to be applicable to other descriptions of castings as well as pipes.

FURNACES.—Mr. G. B. Galloway, Basinghall-street, E.C., has invented some improvements in the furnaces of steam-boilers used in breweries, distilleries, and in other situations, and for other purposes. There is an additional fireplace in which it is intended to consume smoke or other suitable fuel, and over the fire or fires the flames from the other fires are caused to pass by a suitable arrangement of the flues or tubes. An air channel is fixed or formed so as to extend across the front of the furnace, and the air is drawn in by a fan, and is placed just under the fire door. Into this channel air is supplied in any convenient manner, and the same aperture therein with short pipes or nozzles communicating with the fire door frames and also the fire bars, which are hollow, and furnished with apertures through which the air can escape in a lateral direction to or by means of apertures through the bridges. By this arrangement, the air on being admitted or forced into the said channel will pass into the hollow fire bars and out of them into the spaces between the bars, which are placed somewhat further apart than usual. The air also in passing longish will cool the bars, and will tend to cool the bridges. In this manner the draught in the furnace will be increased. The two fire doors below the grate in an inclined direction in order to catch the cinders, and regulates the draft into the fireplaces or furnaces by means of a door affixed to the front of the ash pit.

PURIFICATION OF COAL.—Mr. de Borgevin, Sermon-lane, E.C., proposes to deprive coal of its defective qualities by subjecting it to certain chemical preparations, which absorb and neutralise these defects, whereby, in burning, the coal will emit but little smoke vapour, and will not form with intrinsic heat, elinker or cake together, and will be applicable to the furnaces of locomotives and other boilers, as well as to the domestic and manufacturing purposes generally. In the particular quality of the coal to be operated on, and according to the uses to which it is to be applied, he immerses it in a bath of the following compositions:—No. 1. Sulphate of calcium, anhydrous, or other forms of lime, petroleum or coal tar, sulphate of iron, and a little of the sulphate of soda dissolved in water.—No. 2. The same ingredients as No. 1, with bicarbonate of soda added.—No. 3. The same as No. 1, and 2, with the addition of asbestos.—No. 4. The same as No. 1, 2, and 3, with the sulphate of zinc, muriate of ammonia, and the double salts of manganese and zinc.

PREVENTION OF EXPLOSIONS IN COAL MINES.—Mr. J. Jones, Falcon-street, Bolton-le-Moors, proposes the following:—Introduce into a coal mine a basin containing muriatic acid, which, when the lid is raised readily gasifies, as gas is the peculiar natural condition of muriatic acid; on escaping from the basin it quickly combines with the hydrogen and nitrogen of the mine, for which muriatic acid has the greatest affinity, and beautiful needle-like crystals of muriate of ammonia are deposited on the sides and surface of the mine, the effect is striking, invisible gases readily producing a solid substance. For greenishness the lid may be partially raised, and the gas is introduced in greater security. For greater security, the mine, communicating with an electro-galvanic battery on the bank of the mine, and, every evening, when the miners have left, a current of electricity is passed through the mine, which causes the gases more easily and quickly to combine, and by probing the mine ensures no aggregation of fire-damp beyond that accumulated in one day. Muriatic acid costs about 1d. per lb. in carboys, and is offered at 2d. 10s. per ton. The muriate of ammonia, or sal ammoniac precipitated, sells for about three times that amount. A little lime will absorb the choke damp. There are in mines, properly speaking, three kinds of dangerous gases, namely, hydrogen; choke damp, carbonic acid; and nitrogen. The engine and batteries are provided with alternate layers of gutta percha, rubber, a sleep, stuffy gas, which renders the miners careless and neglectful of rules, working, it might almost be said, by instinct.

WROUGHT-IRON RAILWAY CARRIAGES.—In the Journal of Oct. 14, 1854, we published an illustrated description of Dr. La Mothe's invention for preventing the destruction of railway carriages, in case of collision or similar accident, and it appears the invention is now about to be practically carried out in New Jersey, U.S., and no doubt the English may then do something towards introducing a lighter and safer description of carriage. It will be recollected that the carriage was to consist of wrought-iron, woven together like a basket, and riveted at each crossing, so that in the event of an accident occurring, although the carriage might be thrown out of shape, it could not be smashed, as the carriages at present in use would be, and the chances of the passengers being injured would be considerably diminished.

IMPROVED MOVING BATTERIES, DISPENSING WITH THE POLITICAL NECESSITY FOR A STANDING ARMY.—Mr. Joseph Jones, of Bolton-le-Moors, to accomplish this object, proposes by the first mode to employ a machine attached to an ordinary locomotive on rails or otherwise, and carrying a number of rifles or cannons, arranged to be projected at pleasure. To each of the cannons is a branch wire, communicating with a galvanic battery. The ball is placed in the cannon, and hermetically sealed with partially damp cotton; when a stroke or shock of electricity is applied, the ball is projected. In case of the cannon being electro-locomotive, the same electric fluid will be dependent. In case of rifles, each man may have a pocket battery—now in use. The electric fluid causes the air to expand (our atmosphere has more electricity in proportion to height); each cannon is lined with a non-conductor, of gutta percha. Another cannon is oxygen-hydrogen, the explosive gas in mines; the cannon is, as before, lined in or outside with gutta percha (a non-conductor); a sponge suspending water is first put into the cannon, then the ball, and hermetically sealed with cotton, when a little vitriol (a few drops) is introduced through the touch-hole, and the ball is ejected. By a particular device the touch-hole is sealed until the ball is ejected. The engine and batteries are provided with alternate layers of gutta percha, iron, and cotton, covering the whole, and also the fronts of the wheels.

IMPROVED MAGNET.—Mr. Joseph Jones, of Bolton-le-Moors, has invented "an improved magnet or loadstone for the person, by which an extraordinary power and permanency of influence is obtained for hypnotists, somnolists, and phycists." This instrument is in the shape of a watch; the interior is a number of powerful magnets, or iron-dust made into a pulp with oil, &c., dried before the fire, and then magnetised in the ordinary manner; a wire is placed to each of the poles, and covered with a plate of aluminium or other perfect metal, the wire still protruding; over the plate of aluminium is another plate of the same metal, and so on ad libitum, the wires continuing to protrude. The magnets and plates are of the form of a parallelogram; over these is a ball of gutta percha, or other non-conductor, allowing entrances for the wires, which are rolled round the ball ad libitum; the whole is enclosed in another ball of gutta percha, and the wires are conveyed to the "poles of the body" (a magnetic phenomenon)—the neck and abdomen; the influence is thus equalised, and health is an additional result, as well as correctness of hypnotism, for it is not the mind alone which is hypnotised. The greater the length of wire between the two balls the greater the power; the plates of iron and aluminium also produce electro-magnetic fluid with the moisture of the human body, without the assistance of the inner magnet as well as generating the fluid. The extraordinary power of the inner magnet, is thus explained: the sum of two powers acting in unity is greater than the sum of their powers acting separately—the French fleet is more powerful together than in two separate parts; again, the sum of three powers acting in unity is greater than the sum of their powers acting severally, and also the results of forces, as seen at the battle of Aboukir Bay.

NEW SUBSTITUTE FOR LEATHER.—Mr. Campin, the patent agent, has just specified a patent, taken out in his name, on behalf of M. Moulin, of Paris, the inventor, for an improved textile fabric, which, from its close compact, yet pliable texture, is found to be a useful substitute for leather for many purposes, especially for cards for carding cotton, wool, silk, &c., and also for other purposes. The texture is composed of either cotton, silk, hemp, or any other textile substance, or any other textile substance. The option is obtained of employing a coarse or fine thread at pleasure. The loom for making this tissue is the same as the Jacquard, saving some alterations. Each thread of the warp, without distinction of nature, works at each step, and forms a continual crossing with the wool, all the length and all the breadth of the tissue; so that, although different from felt, or anything heretofore attempted, this tissue does not present in its interior any void spaces. This loom is composed like the ordinary looms—of mountings, upon which are fixed longitudinal traverses, which sustain the warp, and on one side the warp, and on the other the tissue being made. The threads of the warp are composed of any of the textile matters aforesaid, and are rolled upon the beam or roller. This warp passes over the traverses, and then passes horizontally within the eyelet of the leases (lisses), and of the openings within the comb, which is retained within the batten or beater, which batten or beater is retained by four vertical arms, which are united at their upper extremities, free to oscillate and follow the movements of the batten or beater. Upon the traverses are fixed the levers, joined to an upright lever on the right, which pushes alternately the shuttle one way or the other. Whilst the warp is formed in the tissue, it rests on the traverses, and then rolls itself upon the beam or roller, which is capable of being turned by means of a ratchet wheel, by means of two clicks or pallets, which are worked by the hand by means of the cord bound to the lever, and under the command of the weaver. For unrolling the threads of the warp, the beam or roller has also a ratchet and pallet, which is made to move by the aid of the lever pivoting in the supporting piece. For working the crossing of the threads, the inventor employs certain mechanism placed over the traverses pressing upon the extremity of the traverse, the lever, which is made to rise, being joined to the traverse. As this treadle is like those in an ordinary Jacquard loom, every time that the horizontal needles rise to the hooks, encountering the holes of the cards, they permit the vertical hooks to be carried away by the traverse by the ascending movement, and, consequently, seeing that the hooks are joined with the leases (lisses) raises them equally within certain limits; for by the shuttle passing between, all the threads of the warp thus rise, making the tissue desired. In the end, the piece is taken from the loom, is folded, pressed, and bathed in a solution of agaric and ochre (by preference), and then cylindered with lime.

BRIDGES AND GIRDERS.—Paris 15 and 16 of Mr. W. Humber's Practical Treatise on Cast and Wrought-iron Bridges and Girders, as applied to railway and other structures, contains, besides descriptive letter-press, plans of works on the Strood and Maidstone Railway, Chelsea Bridge, Great Northern Railway, Cannon Branch, South Staffordshire Railway, and Sursuttee Bridge, East Indian Railway.

Mr. Nicholas Wood and Mr. Woodhouse, accompanied by Mr. Robert Stephenson, M.P., and Mr. Joseph Locke, M.P., have had an interview with Earl Grenville and Sir George Grey, on the establishment of a mining college and schools for the education of the practical managers of coal mines.

Mr. Beattie, the locomotive superintendent of the South-Western Railway, obtained a verdict against the Brighton Railway, on Saturday, for the infringement of his patent for a lathe used in the preparation of railway wheels, with 124d. damages. We believe this a beginning of proceedings to be taken against other railway companies for like infringements.—*Herapath's Journal*.

AN IMMENSE STEAM-ENGINE.—A correspondent, who has been visiting the iron and coal regions of Pennsylvania, writes of an immense steam-engine at Swanton, which is used simply to create a draft for the iron furnaces. It is of 1700-horse power, and fills a good-sized three-story brick building. The writer says it is the most magnificent steam-engine in the world, and that a mate of like dimensions is now building.—*Liverpool Mercury*.

The National Discount Company, whose shares have lately been depressed, owing to exaggerated rumours of losses, have announced their half-yearly meeting for the 23d inst. The accounts, it is said, will show a balance of profit after writing off all bad debts.—*Times*.

PRELIMINARY NOTICE.

MR. HENRY WILLS WILL SHORTLY SELL, BY PUBLIC AUCTION, THE WHOLE OF THE IVYBRIDGE MINE MATERIALS, MACHINERY, &c., comprising—
1 50 in. PUMPING ENGINE, 10 ft. stroke, 2 boilers 10 tons each.
1 24 in. horizontal ditto, 1 boiler 10 tons.
In Pitwork.—A 32 fms. plunger-lift.
16 fms. each of 14 in., 11 in., and 9 in. lifts.
20 fms. 12 in. ditto.
Capstan and shears.
Capstan and other ropes, &c.

The 50 in. engine is beautifully fitted, made of the very best materials, has all the modern improvements, strong in all her parts, and has only worked a short time. The house is fitted fire-proof, with slate floors, iron girders and stairs.

Both engines are worthy of the attention of mining or water companies, no expense having been spared in their manufacture to render them efficient machines. Drawings of the same may be seen at the office of the auctioneer, to whom application should be made for further information at his office, No. 17½, George-street, Plymouth.

To be published in about Twenty Monthly Parts, in imperial 4to., at 2s. 6d. each, a **PRACTICAL TREATISE ON CAST AND WROUGHT-IRON BRIDGES AND GIRDERS**, as applied to Railway Structures, and to Building generally, with Numerous Examples, drawn to a large scale, selected from the public works of the most eminent engineers.

By **W. HUMBER, Assoc. Inst. C.E.**
Each Part will contain Four Plates, with Letter-press, and will include Elevations, Sections, and Details, drawn to a large scale, of Cast-Iron, Malleable Iron, and Compound Iron Bridges, &c., which have been actually constructed, giving one or more specimens of the works of the most eminent civil engineers of the present day.
London: E. and F. N. Spon, 16, Bucklersbury; Aylott and Co., Paternoster-row; Brunsell, Minquart; Birmingham, Bell and Wright; Dublin, W. B. Kelly; Glasgow, R. Griffin and Co.; Manchester, Thomson; Newcastle, F. and W. Dodsworth; New York, D. Appleton and Co.; Nottingham, Wheatley; Philadelphia, J. W. Moore; Paris, Fowler; and all booksellers.

THE PRACTICAL MECHANICS' JOURNAL (Part 112, July, 1857, price 1s.) contains—Two large Copper-plate Engravings of Messrs. Cranstoun, Young, and Lovell's Continuous Steam Boiling Apparatus, and Messrs. Richardson's Railway Turn-Table, 40 Wood Engravings, and 28 quarto pages of Letter-press, with Original Articles on the Continuous Steam Boiler; the Royal Institution; Mechanical Notes from America; Morrison's Steam Hammer; Society of Arts' Exhibition (second notice); Bache's Lamp Shade; Supplying Water to Boilers; Somerville's Weaving; Sinclair's Grain Dryer; Sumner's Flyers; Barclay's Manufacture of Iron; Law and Inglis' Moulding; Dixey's Opera Glasses; Rennie's Steam-Engines; Johnson's Moulding; Perry's Lubricating Compounds; Robertson's Pistons; Kiniburgh's Moulds; Richardson's Turn-Table; Cooke's Poultry Pen; Gadsby's Truss; Taylor's Sash Fastener; Reviews of New Books; Lists of Patents; Monthly Scientific Notes; Correspondence; Designs Registered, &c.
Longman and Co., Paternoster-row; Editor's Office (Office for Patents), No. 47, Lincoln's Inn-fields.

POPULAR SCIENCE.

THE MECHANICS' MAGAZINE, which was established in 1823, and has now reached the completion of its 44th volume, is the OLDEST and best known MAGAZINE of POPULAR SCIENCE in the world. At its commencement, it was noticed eulogistically by Lord Brougham, and in the Report of a Parliamentary Committee; and, during the last three months, it has been favourably mentioned, and quoted from, in the House of Commons, by the First Lord of the Admiralty, and spoken of with the utmost praise by Sir Robert Peel, at the Blackburn Mechanics' Institution. In addition to these testimonials, it has received very laudatory notices from the Press in general. With the new volume, commencing Saturday, the 4th July, renewed efforts are made to render this publication worthy of its present extended patronage, and of the support of a still larger circle of professional and amateur men of science.

It should be stated that the articles which appear in the **MECHANICS' MAGAZINE**, although strictly scientific in the main, are kept as free from technicalities as possible. It is owing to this circumstance that it has from the first circulated extensively, not only among engineers, mathematicians, and other such persons, but also among officers of the army, navy, and civil service, and private gentlemen of scientific tastes. The **MECHANICS' MAGAZINE** is published in Weekly Numbers, price 3d. (per 4d.); in Monthly Parts, price 1s. (or 1s. 3d.); and in Half-Yearly Volumes, price 7s. It is sent anywhere in the United Kingdom for an Annual Subscription of 17s. 4d.

ROBERTSON, BROOMAN, and Co., Mechanics' Magazine and Patent Office, No. 166, Fleet-street, London.

On the 1st of every month is published, price One Shilling.

THE ARTIZAN; A MONTHLY JOURNAL OF THE MECHANICAL ARTS. Illustrated by large Plate Engravings and Woodcuts of Engines and Machinery actually constructed, and by the most celebrated firms in the kingdom, all accurately drawn to scale.
The ARTIZAN has a large and widely-extended circulation amongst the following leading classes:—Viz., Steam Navigation Companies; Ship-builders and Owners; Railway Companies, Engineers, and Contractors; Gas and Water Companies; Civil and Mechanical Engineers; Ironmasters and Founders; Architects and Builders; Officers of the Steam Navy; Machine and Tool Makers; Boiler Makers and Brass Founders; Agricultural and Mechanical Implement Makers; Manufacturers, Agriculturists, and others employing steam-power; Proprietors of Chemical Works, &c.
Price 1s. each Number, free per post; or in Yearly Volumes, price 14s. each. A list of contents free per post, on application to the publisher, **MATTHEW SOUL, No. 4, Agar-street, Strand, London**.

Signed, G. E. MAGNU

To the Proprietors of the Machno Slate and Slab Quarries.

Liverpool, Oct. 18, 1855.—DEAR SIR: The experiments which I have tried of specimen of slate, in reference to its capability of resistance to acids, enable me to pronounce it in every way capable of retaining boiling vinegar, without injury to its own substance, or to the contained vinegar. A piece of the slate, weighing 35 lbs., was exposed for 26 hours to the action of cold strong nitric acid; it was boiled in the same acid for 20 minutes, and when washed, dried, and weighed, was found not to have lost perceptibly in weight. This I consider the most conclusive experiment.

GEO. C. RUSSELL

Wm. Orme Carter, Esq., Machno Slate and Slab Company.

All communications must be addressed to the resident director, Mr. T. H. WASSON.

Conway, 2025b). These findings suggest that the observed effects of the intervention may be related to the specific components of the intervention, such as the use of the intervention materials and the role of the interventionist.

PREVENT SMOKE AND INCREASE STEAM.—PATENT REGULATING AIR-DOOR, for MARINE AND STATIONARY STEAM-BOILERS, and for LOCOMOTIVE AND OTHER FURNACES.

Persons left Victoria Docks with air apertures closed (i.e. action of invention suspended), steam fell in 20 minutes from 15 lbs. pressure to 13; smoke heavy for five minutes at each firing. Air apertures then opened; smoke suppressed in 30 seconds; and in ten minutes after adjustment of apertures steam blowing off at 15 lbs., and so maintained when pilot left at sea.

For further particulars respecting the Patent Regulating Air-Door, and the Patent Safety Marine Boiler, and with reference, also, to his Patent Land Furnaces, Domestic Stoves, and other inventions comprised in his System of Smoke Prevention, apply to Mr. JOHN LEE STEVENS, 1, Fish-street-hill, City, London (E.C.), where a great variety of models and drawings may be seen, and reports and testimonials obtained.

OVERLAND ROUTE.—STEAM TO INDIA AND CHINA, &c., via EGYPT.—THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS for the MEDITERRANEAN, EGYPT, ADEN, BOMBAY, CEYLON, MADRAS, CALCUTTA, the STRAITS, and CHINA, by their steamers leaving Southampton on the 4th and 30th of every month.

For further particulars, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

STEAM PUMPS, FOR LAND AND MARINE PURPOSES, SINGLE or DOUBLE ACTING: sizes from 2½ to 12 in. diameter, and from 4 to 18 in. stroke, by JOHN CAMERON. Used for feeding boilers, raising water (for reservoirs, tanks, irrigation, &c.), turning power, or as a steam fire engine. Works, Egerton-street, Hulme, Manchester.

PATENT WIRE ROPES, ONE-HALF THE COST OF HEMP ROPES.—HENRY J. MORTON AND CO.'S (No. 2, BASINGHALL BUILDINGS, LEEDS) PATENT WIRE ROPES, for the use of MINES, COLLIERIES, RAILWAYS, &c.; one-half the weight of hemp ropes, and one-third the cost; one-third the weight of chains, and one-half the cost—in all cases these advantages are self-evident. References to most of the principal colliery owners in the kingdom. GALVANISED SIGNAL CORDS AND KNOCKER LINES; will not rust or corrode, and not affected by the copper water in mines. Very strong, and not at all liable to break. Prices from 15s. per 100 yards.

CROGGON'S PATENT ASPHALTED ROOFING FELTS, 1d. per foot. DRY HAIR BOILER FELTS, to save coal. PATENT BOILER COMPOUND, for bad water. PATENT ROLLING MACHINES, of all sizes. GALVANISED IRON ROOFING AND SPOUTING. PATENT FLEXIBLE STEAM PACKING, 1s. 4½d. per lb. PATENT METALLIC PACKING, 4s. per lb. PATENT AMERICAN DRIVING BANDS, much cheaper and more durable than leather. PATENT GALVANISED AIR-PIPES, for ventilation.

STOCKS OF MINING AND RAILWAY STORES in Liverpool and London:—vis. OILS, GREASES, COTTON WASTE, SPUN YARN, WHITE LEAD, VARNISHES, &c.; and at very low prices. Address, 2, Basinghall-buildings, Leeds. N.B. Illustrated price list on application.

MOST IMPORTANT TO COLLIERY OWNERS AND COLLIERY MANAGERS.—HENRY J. MORTON AND CO., GALVANISED IRONWORKS, No. 2, BASINGHALL BUILDINGS, LEEDS, beg to call attention to their IMPROVED SIGNAL BELL, especially prepared to meet the requirements of the new Act for the Inspection of Coal Mines. It has met with the decided approval of many large colliery owners and managers. SINGLES, ERYTHRA, and CROGGON'S PATENT. Price £1 10s. each.

BYRON'S PATENT ANEMOMETER, for testing the ventilation. Price £3 1s. to £4 4s. each. STEAM PRESSURE GAUGES, very strong and accurate, £3 and £3 12s. 6d. each. For further information, apply to H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES, for the use of IRONWORKS, COLLIERIES, RAILWAYS, WAREHOUSES, STORES, &c. The most ACCURATE MACHINES in use, and the cheapest.

MACHINES of all sizes, from 1 cwt. to 30 tons, for RAILWAY WAGONS, CARS, or WAGONS.—For prices and all other information, apply to HENRY J. MORTON AND CO., Galvanised Ironworks, 2, Basinghall-buildings, Leeds. Croggon's Patent Asphalted Roofing Felt, Boiler Felt, Galvanised Iron, &c., in Stock.

PATENT COMBINED GAS WORKS, of all sizes, for the use of PRIVATE HOUSES, MANORIALS, RAILWAY STATIONS, MILLS, COLLIERIES, VILLAGES, &c. FIXED COMPLETE, with greatly improved means for purifying, &c. Works of all sizes, from 10 lights to 500 lights, estimated for. The construction is so simple, that the works can be entrusted to the management of an ordinary labourer or servant.

Apply to H. J. MORTON AND CO., Galvanised Iron Works, 2, Basinghall-buildings, Leeds. SOLE LICENSEES AND AGENTS.

TO ENGINEERS, RAILWAY COMPANIES, STEAM PACKET COMPANIES, COLLIERY OWNERS, MILL OWNERS, &c.—WARNE'S IMPROVED ANGLICAN FLEXIBLE CANVAS, and MINERALISED INDIA RUBBER PACKING FOR STEAM JOINTS, PUMP CLACKS, VALVES, &c.—The attention of all using steam-power is called to this elastic packing, possessing advantages which renders it the cheapest in use. Reducing friction, saving time and labour, and lasting as many months as hemp or spun yarn will weeks. Price 1s. 4½d. per pound, carriage paid.

Also, MINERALISED INDIA RUBBER HOSE PIPES, TUBINGS, MILL BANDS, and WASHERS. The attention of engineers, mill owners, machine makers, brewers, and others, is called to the above improved hose pipes and machine belting or mill bands, the important advantages of which, as regards durability, efficiency, and cheapness, are too well known and appreciated to need comment.

For lists of prices, apply to the agents, HENRY J. MORTON AND CO., Galvanised Ironworks, 2, Basinghall-buildings, Leeds.

INDIA RUBBER WASHERS for JOINTS for steam, water, and gas, of all sizes.

TO ENGINEERS, BUILDERS, SHIP-BUILDERS, MILL MAKERS, &c.—W. BLACKETT has continually in STOCK, at the HOPE IRONWORKS, SOUTH-WALK BRIDGE ROAD (close to Union-street), LONDON, a variety of ENGINEERING TOOLS, consisting of Large and Small Lathes, Drilling and Boring Machines, Shaping, Planing, Punching, and Shearing, Slotting, and Screwing Machines, ready for delivery. May be seen on application. N.B. Tools not in stock made to order.

PUMP BUCKETS.—IMPORTANT TO COLLIERY AND MINING PROPRIETORS, SHIP OWNERS, ENGINEERS, &c.

KENNEDY AND EASTWOOD'S PATENT EXPANDING RING CLACK PUMPS.—These buckets are APPLICABLE to every description of AIR and LIFT PUMPS, and are being generally adopted, on account of their great durability, entirely dispensing with the use of leather or gutta percha. Being made of metal, the friction is greatly reduced, and have been proved to require at least one-third less power to work them than buckets made of either leather or gutta percha, and doing their work more efficiently.

Whitehaven, March 26, 1857.—GENTLEMEN: We have much pleasure in informing you that your Patent Pump Bucket is giving us the greatest satisfaction, and we shall certainly use no other kind in future. We shall be glad if you will send us a few of your prospectuses, we wish to send one to a friend in Staffordshire. Please to send one of the gauge, that you may at any time make new rings for us by them, the one you now have is for your bottom lift. Yours, truly, (Pro S. W. SMITH AND CO.), A. HODGKINS.

Messrs. Kennedy and Eastwood. KENNEDY AND EASTWOOD have also a NEW PATENT METAL BOTTOM CLACK (to work with their Patent Buckets), which entirely dispenses with the use of leather or gutta percha, and is highly recommended for the efficiency of its working and great durability. A wire gauge, the exact size of the working-barrel, should accompany any order.

Terms, drawings, testimonials, and other information, will be supplied (gratis) on application to Messrs. KENNEDY AND EASTWOOD, patentees, Ulverston, Lancashire; Messrs. HAWT and ALLOTT, accountants, Central Chambers, Sheffield; and Messrs. H. J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

VULCANISED INDIA RUBBER MACHINE BANDING is not affected by wet, heat, or cold; does not stretch nor slip on the pulleys. ROSES for BREWERIES, &c. will not impart taste, smell, or colour; also, for condensing, or steam purposes. VALVES, WASHERS, PACKING, &c. IN STOCK.—Prices and testimonials on application to DODD, BACON, and CO., No. 44, St. Paul's Church-yard, London, E.C.

GUTTA PERCHA BANDS, TUBING, &c.—OUR BANDS, carefully MANUFACTURED from the VERY BEST GUTTA PERCHA only, are considerably CHEAPER, and, when fairly worked, are far more DURABLE than LEATHER. Can be had in lengths of 100 or 150 ft. without a joint, are easily joined or repaired, and are, when worn out, re-purchased by us at about one-third of their original cost. In the event of a break down, a band of any size can be supplied within a few hours of receipt of order. The present prices are as under:—Bands ¾ in. thick and upwards to 1½ in. ... 2s. 6d. per lb. Bands above 1½ in. thick ... 3s. 2d. per lb.

Subject to a liberal discount for cash, varying according to quantity. TUBING and other articles equally low. All our patented manufactures are to be obtained wholesale from our own works; retail from any of our dealers.

THE WEST HAM GUTTA PERCHA COMPANY. West-street, Smithfield, London, E.C.

THE BEST HYDRAULIC CEMENTS, PORTLAND, ROMAN, AND BATH;

Made from the NATURAL CEMENT STONE, by the ORIGINAL INVENTORS AND MANUFACTURERS,

FULLWOOD, THOMPSON, AND CO., "THE BRIDGEWATER CEMENT WORKS," BRIDGEWATER.

Can be relied upon for INVARIABLE REGULARITY of strength and colour. Patent—Casks included, delivered (freight paid) at Cardiff, Newport, and most other ports in South Wales.—Portland and Bath, per cask of 4 bushels ... 8s. 6d. Roman, per cask of 4 bushels ... 7s. 6d.

And delivered to all other parts at proportional prices. Reference permitted to Mr. D. LEWELLYN, C.E., Consulting Mining Engineer, 10, King's Arms-yard, Moorgate-street, London, of whom samples, testimonials, and all further information may be obtained.

GLENFIELD PATENT STARCH, USED IN THE ROYAL LAUNDRY.

AND PRONOUNCED BY HER MAJESTY'S LAUNDRESSES TO BE THE FINEST STARCH EVER USED.

Sold by all chandlers, grocers, &c.

RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO., MIDLAND WORKS, BIRMINGHAM. BROAD AND NARROW GAGE CO. AND IRONSTONE WAGONS, IN STOCK—FOR SALE OR HIRE.

RAILWAY WAGONS.—TO LET, for the term of three or six months, a NUMBER of nearly new 6 tons WAGONS, at the rate of £10 10s. per annum each wagon.—Apply to Mr. T. NEASE, Wellington Chambers, Cannon-street, London, E.C.

BURGIN AND WELLS, STEEL CONVERTERS AND REFINERS, MANUFACTURERS OF RAILWAY CARRIAGE AND WAGON SPRINGS, IMPROVED CAST-STEEL WHEELS, &c. HOLLIS CROFT STEEL WORKS, SHEFFIELD.

JOHN H. PECK, MANUFACTURER OF RAILWAY OIL COVERS, CART AND WAGON COVERS, OIL CLOTH, STACK COVERS, BOAT SHEETS, TARPULIN, BRATTLE CLOTH, COKE AND CORN SACKS, POTATO BAGS, TWINE, &c., WIGAN. LONDON AGENT.—T. E. WELLS, 15, Duke-street, Adelphi.

ROBERT MACLAREN AND CO., EGLINTON FOUNDRY, GLASGOW, MANUFACTURERS OF ALL SIZES OF CAST-IRON MAIN PIPES, FOR GAS AND WATER, by an improved patent. GENERAL IRONFOUNDERS AND GAS ENGINEERS. MAKERS OF WROUGHT-IRON TUBES AND FITTINGS. AGENTS IN LONDON.—A. MACLAREN AND CO., No. 174, Upper Thames-street.

BRYAN, MCCracken, AND CO., MERCHANTS, AND GENERAL COMMISSION AGENTS, NEWCASTLE-ON-TYNE. Office, Three Indian Kings-court.

WILLIAM FOX AND SON, METAL AGENTS, No. 39, OLD HALL STREET, LIVERPOOL, SOLE AGENTS IN LIVERPOOL for the SALE of the following makes of IRON:—

DAWES AND SON'S. PLANT AND FISHER'S. MILTON AND ELKESAR. BROUGHTON HALL. JOHN MARSHALL'S. DANIEL ROSE'S.

EVERY DESCRIPTION OF IRON ALWAYS ON SALE. Also, TIN-PLATES, WIRE, RAILWAY SPIKES, &c.

CALVERT'S PATENT PROCESS FOR MAKING COKE AND IRON FREE FROM SULPHUR.

For LICENSES TO USE the above process, apply to ROBERT LONDON, Jun., 53, King-street, Manchester.

For APPLICATION of the PATENT to GAS WORKS, apply to Mr. GEORGE TRICKETT, Exchange Chambers, Manchester.

MUNTZ'S PATENT SOLID ROLLED BRASS TUBES, FOR LOCOMOTIVE AND MARINE BOILERS.

G. F. MUNTZ, Jun., begs to state that, in consequence of the satisfactory results obtained during the five years these tubes have been in use, the following railway companies have entered into contracts to USE the PATENT TUBES exclusively on all their lines, viz.:

The London and North-Western Comp. The Lancashire and Yorkshire Company. The Midland Company. The Newcastle and Carlisle Company. These tubes are also very extensively used on all the other principal railways at home and abroad, and for marine purposes by H. M. Majesty's Navy and several of the leading steam-packet companies, and also by all the eminent engineers of the kingdom. G. F. MUNTZ, Jun., takes this opportunity of stating that the tubes now manufactured are very superior, both in finish and quality, to those formerly produced in the early stage of the patent.—French Walls, Birmingham, April, 1857.

GEO. RICHARDSON AND CO., Agents, 10, Craig's-court, Charing-cross, London.

THE PERMANENT WAY COMPANY, being the proprietors of the most important PATENTED IMPROVEMENTS IN PERMANENT WAY,

which are adopted on upwards of 9000 miles of railways at home and abroad, continue to GRANT LICENSES for their USE, and to give every information to engineers as to the cost of the different systems. These improvements have for their object the safety of the public, the economy of maintenance, and the increased durability of the Permanent Way of railways; and their merits are now recognised by all the eminent engineers of the day, and sanctioned by the Officers of the Railway Department of the Board of Trade.

26, Great George-street, Westminster. WILLIAM HOWDEN, Sec.

SHORTTRIDGE, HOWELL, AND JESSOP, HARTFORD STEEL WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS BOILER-PLATE METAL, combining the strength and durability of steel with the malleability of copper; warranted to bear double the pressure of the best boiler-plate iron; RIVETS, ANGLES, and STAYS of the same material. Also, RUSSELL AND HOWELL'S PATENT CAST-STEEL TUBES, for multibore boilers, shafting, railway axles, &c.—Application to be made to SHORTTRIDGE, HOWELL, and JESSOP, Hartford Steel Works, Sheffield; and Messrs. HARVEY and CO., No. 12, Haymarket, London.

GOLD ORES TREATED BY THE NEW PROCESS.—TO GOLD COMPANIES, AND TO THOSE INTERESTED THEREIN.—CALIFORNIAN AND AUSTRALIAN QUARTZ, showing no visible gold, yield, by the new method of treatment, from 50 to 120 ozs. of gold per ton; and practically proves that gold exists largely in quartz in a non-metallic state, the same ores, by the present system of treatment, not averaging one ¼ oz. to the ton.

The shareholders of the Quartz Reduction, Anglo-Californian, Liberty, Waller, and especially those of the Quartz Rock Company, are invited to inspect ores from their mines which have been operated upon. And parties desirous of having the new system of gold extraction fairly tested may bring their own quartz for that purpose. English and Foreign Ores carefully Assayed and Purchased, Mines and Gold Localities Surveyed.—Apply to Mr. SAUER, 74, King William-street, City.

WALKER'S PATENT DRY STAMPING MACHINERY, adapted for every kind of ORES. The success of those in use show that the work is done QUICKER, the stuff FINER, and will be found invaluable for EXTRACTING GOLD AND SILVER.—Factory, 17, Cowper-street, City-road, where everything for mining purposes can be obtained.

ELECTRIC TELEGRAPH.—REID AND CO., TELEGRAPH ENGINEERS, and CONTRACTORS for FITTING-UP TELEGRAPHS in MINES and COAL PITs, by means of which the overseer can communicate instantaneously with any part of the workings, effecting a great saving in time, and preventing many accidents.

Office, 262, Gresham House, Old Broad-street, London; Works, 25, University-street, Tottenham-court-road.

TO COLLIERY OWNERS.—SAFETY with ECONOMY in using MOZARD'S PATENT IMPROVED SAFETY MINING LAMPS, which give a brilliant light and prevent explosion, as the lamp cannot be opened without extinguishing the light; and for twelve hours' burning the cost does not exceed 1d.—Manufactured by H. HODGKINS, 31, Berwick-street, Soho, London.

PATENT SAFETY FUSE.—THE GREAT EXHIBITION PRIZE MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, DAVEY, and PRYOR, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, infallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate. Address.—BICKFORD, SMITH, DAVEY, and PRYOR, Tucknall, Cornwall.

SAFETY FUSE.—Messrs. WILLIAM BRUNTON AND CO., PEN-HALLICK, near REDRUTH, CORNWALL, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

Messrs. BRUNTON & CO. are at all times PREPARED TO EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE direct from their own MANUFACTORY, upon warrant that it will prove equal to, if not better, than any to be procured elsewhere.

THOS. GEMMELL AND CO., WIRE ROPE MANUFACTURERS, WORKS, FIREHILL ROAD, SPRINGBANK, GLASGOW.

WAREHOUSES.—Finniston Quay, Glasgow; 10, King-street, Liverpool; 43, Marischal-street, Aberdeen; 46, Osborn-street, Hull.

AGENTS. HENRY J. MORTON AND CO., 2, Basinghall-buildings, Leeds.

GEORGE OUTRICK, Liverpool-road, Stoke-upon-Trent.

ISAAC NAYLES, Didsdale, near Dudley.

J. WADDINGTON, 109, Millgate, Wigan.

THOMAS REID, 33, Quayside, Newcastle-upon-Tyne.

MESSRS. R. & J. COUPE, ENGINEERS AND IRONFOUNDERS, MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM-ENGINES, from 10 to 200-horse power; the larger description of engines mounted with their IMPROVED EQUILIBRIUM SLIDE PISTON VALVE, which has proved itself so eminently adapted for winding and other engines.

Clayton Foundry, Wigan.

CAST-STEEL SPADES, SHOVELS, AND PICKS, suitable for the MINING DISTRICTS at home or abroad, and recommended for their EXTREME LIGHTNESS AND DURABILITY.—Manufactured by Messrs. SPEAR and JACKSON, Etina Works, Sheffield.

BY HER MAJESTY'S ROYAL LETTERS PATENT.

THE DISPATCH OIL SOCKET AND AXLE CLEANER.—To be set in the Hubs or Naves of all kinds of Wheels, in New or Old Carriages (with or without patent close boxes), Coaches, Omnibuses, Cabs, Carriages, Heavy Wagons, Artillery, Dray Carts, &c., of every description. For OILING and thoroughly CLEANING the AXLES without taking off the wheels, and in one minute.

For LICENSES or EXCLUSIVE RIGHTS to apply the OIL SOCKET AND AXLE CLEANER throughout the United Kingdom, address to owner, Mr. CHARLES BROWN, Barlborough, near Chesterfield. Office and shop for applying the Oil Socket, &c., at the Saw Mills, Barlborough; at the Crown Works, Pond Hill, Sheffield; and at all authorised agents throughout the kingdom.

ASSAY OFFICE AND LABORATORIES, DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON.

Conducted by JOHN MITCHELL, F.C.S., Author of "Manual of Practical Assaying," Metallurgical Papers, &c.

Assays and Analyses of every description performed as usual. Special Instruction in Assaying and Analysis. Consultations in Metallurgy, and in the Manufacture of Metallurgical Chemistry. Assistance rendered to intending Patentees, &c. For amount of fees, apply to the office, as above.

MESSRS. KNOWLES AND BUXTON, CHESTERFIELD, MANUFACTURERS OF PATENT TUBULAR TUYERES, FOR HOT BLAST FURNACES, SMITHS' FORGES, &c.



Messrs. KNOWLES AND BUXTON can with confidence bring before the public their IMPROVEMENT IN TUYERES, having proved their utility at Mr. Knowles's furnace, Birmingham Moor, as well as at other furnaces in the surrounding neighbourhood. They are now perfectly satisfied that one trial will be sufficient to convince all practical furnace managers that they are the CHEAPEST and BEST ever offered to the public. The annexed diagram shows the principle to be both simple and efficient, conveying a current of cold water direct to the nozzle of the tuyere, which is made of thin tubing (without the incumbrance of cast-iron), allowing the cooling property of the water to act direct upon that part most exposed to the fire, and is sufficient to keep the liquid metal from adhering to the tuyere, which is not the case with those generally in use. After taking into consideration the first to be replaced, or injuring the metal, they will be found, after a fair and impartial trial, to be most decidedly a great advantage to furnace proprietors.

Messrs. KNOWLES AND BUXTON are prepared to SUPPLY hot-blast furnace tuyeres, with sockets, at 85s. each; without sockets, at 35s. each; smiths' forge tuyeres, at 15s. each; delivered at Chesterfield Station.

PATENT STEAM PACKING, VULCANIZED INDIA RUBBER, &c.

TUCK'S PATENT ELASTIC PACKING AND PATENT METALLIC LININGS,

FOR STEAM-ENGINES, PUMPS, &c.

ADVANTAGES.—A more perfect vacuum is obtained, friction reduced, great saving in oil and tallow, and the packing is gradually and completely worn away without becoming hard, thus obviating the necessity of drawing the old packing.

Orders received for the Patent Packing, also for Vulcanized India Rubber, in sheets, valves, &c., at the Offices of the Patent Steam Packing Co., 47, Mark-lane, E.C.

JOSEPH CRAWHALL. EXHIBITION 1851. CLASS VI. 78.

HEMP AND WIRE ROPES OF EVERY DESCRIPTION.

JOSEPH CRAWHALL AND SONS, ST. ANN'S HEMP AND WIRE ROPE WORKS, NEWCASTLE-ON-TYNE.

MINING, PUMPING, AND WINDING ENGINES, TO BE LET ON HIRE, OR FOR SALE, of various powers.

These engines have been successfully employed for years.

Several may be seen, and terms obtained, on application to Mr. T. CANNAN, engineer, Surrey Iron-works, Blackfriars-road.

HALEY'S PATENT LIFTING JACK,

MANUFACTURED BY THE INVENTOR, JOSEPH HALEY, ALBION STREET, GAYTHORN, MANCHESTER.

SCREW JACKS, SHIP JACKS.

SLIDE AND CENTRE LATHES, PLANING, SHAPING, BORING, DRILLING, SCREWING, WHEEL CUTTING, AND OTHER MACHINES.

RIVET MAKING MACHINES.

MANUFACTURED BY THE INVENTOR, JOSEPH HALEY, ALBION STREET, GAYTHORN, MANCHESTER.

SCREW JACKS, SHIP JACKS.

SLIDE AND CENTRE LATHES, PLANING, SHAPING, BORING, DRILLING, SCREWING, WHEEL CUTTING, AND OTHER MACHINES.

RIVET MAKING MACHINES.

SECOND-HAND FIRE-PROOF SAFES.—A VERY LARGE TWO-DOOR FIRE-RESISTING SAFE, by those eminent makers, Milner and Son, cost three years' since 257, if purchased this week a great bargain. Also, a FIRE-PROOF ROOM, by Cubb and Son; the above has been fitted up regardless of expense, and is suitable for bankers, merchants, solicitors, or public companies. Several other safes, commencing at £3 10s.; dimensions, height 24, width 18, and depth 16.—Apply to C. H. GRIFFITHS, 191, White-chapel-road, E. Fire-proof Safes, Wrought-iron Doors, or Office Furniture, bought.

NOTICE TO RAILWAY AND STEAM-BOAT TRAVELLERS.

—ANDERTON'S HOTEL, 162, 164, and 165, FLEET STREET. BREAKFAST, with joint, 1s. 6d. BEDS, 10s. 6d. per week. DINNERS from Twelve to Eight o'clock; joint and vegetable, 1s. 6d.; with soup or fish, 2s. TURTLE SOUP and VENISON DAILY. BREAKFAST at Half-past One and Half-past Five, at Two shillings each. A night porter in attendance.

AN ACT OF GRATITUDE.

Five Thousand Copies of a Medical Book for Gratuitous Circulation. GEORGE THOMAS, Esq., having been EFFECTUALLY CURED of a NERVOUS DEBILITY, LOSS OF MEMORY, and DIMNESS OF SIGHT, resulting from the early errors of youth, by following the instructions given in a medical work by a physician, he considers it his duty, in gratitude to the author, and for the benefit of nervous sufferers, to publish the means used. He will, therefore, send free, to any address, in a sealed envelope, on receipt of a directed envelope enclosing two stamps, to pre-pay postage, a copy of the medical work, containing every information required.—Address, G. THOMAS, Esq., Craven House, Newcastle-upon-Tyne.

THE SECRET INFIRMITIES OF YOUTH AND MATURITY.

Just published, price One Shilling; post free, in an envelope, for 13 stamps. SELF-PRESERVATION; a Medical Treatise on the Cure of Nervous and Generative Debility, resulting from vicious habits acquired during the critical passage from youth to manhood, with Practical Observations on the Physiology of Marriage, in its social, moral, and physical relations. To which are added, Remarks on the Wonders of the Microscope in revealing the hidden mysteries "of life within life," and its advantages in detecting, by urinary examination, the cause and effect of every variety of these complaints, with numerous engravings and cases. By SAMUEL LAURENT, M.D., 37, Bedford-square, London.

Also, by the same Author, price 1s.; free by post for 13 stamps.

THE SCIENCE OF LIFE; or, How to Ensure Moral and Physical Happiness. Published by J. Allen, 20, Warwick-lane, Paternoster-row; and may be had of Mann, 39, Cornhill; Horne, 19, Leicester-square; Gordon, 146, Leaden-street; or from the Author, who may be consulted daily, from Eleven till Two, and from Six till Eight, at his residence, 37, Bedford-square, London.

HOLLOWAY'S OINTMENT AND PILLS MIRACULOUS REMEDIES FOR THE CURE OF BAD LEGS.—Mr. Allison, of Bowling, states, in a letter to Mr. Umpleby, druggist, of Bradford, that, after a severe cold caught last winter, his legs began to swell, and ultimately sores broke out on each, for the cure of which he tried a variety of remedies without effect, until he used Holloway's pills and ointment, and he says that it was perfectly astonishing to see the effects these wonderful medicines had on his legs, as both were very quickly healed. Sold by all medicine vendors throughout the world; Professor Holloway's establishment, 244, Strand, London, and 60, Maiden-lane, New York; by A. Stampa, Constantinople; A. Gaidley, Smyrna; and H. Hoode, Malta.

THE MINING SHARE LIST.

Shares.	Miner.	Paid.	Last Price.	Present.	Dividends Paid.	Last Paid.
5120	Alfred Conso (cop.), Phillack (S.E.)	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
1624	Ballewidden (tin), St. Just	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
4000	Bedford United (cop.), Tavistock	21 1/2	20 1/2	20 1/2	20 1/2	20 1/2
240	Boscon (tin), St. Just	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
200	Botalack (tin), St. Just	27 1/2	26 1/2	26 1/2	26 1/2	26 1/2
100	Brighside and Froggatt Grove, Derbyshire	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
100	Bryntall, Llanidloes, Montgomeryshire	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
100	Bryntall, Llanidloes, Montgomeryshire	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
420	Budnick Conso (tin), Perran	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
6000	Bwlch (silver-lead), Cardiganshire	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
1000	Carn Brea (cop.), Illogan	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
200	Carnyorth (tin), St. Just	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
200	Carn Cwm Brynny (lead), Cardiganshire	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
2000	Collacomb (copper)	10 1/2	9 1/2	9 1/2	9 1/2	9 1/2
250	Comfarrow (copper), Camborne (S.E.)	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
2000	Craven Moor, Limited (lead), Yorkshire	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
125	Croyston (lead), Cardiganshire	60 1/2	59 1/2	59 1/2	59 1/2	59 1/2
200	Dewy West Mines (silver-lead), Durham	300 1/2	290 1/2	290 1/2	290 1/2	290 1/2
1024	Devon Great Conso (cop.), Tavistock (S.E.)	450 1/2	440 1/2	440 1/2	440 1/2	440 1/2
673	Ding Dong (tin), Guilt	32 1/2	31 1/2	31 1/2	31 1/2	31 1/2
100	Doleath (copper), tin, Camborne	257 1/2	247 1/2	247 1/2	247 1/2	247 1/2
12800	Drake Walls (tin), Calstock	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
200	East Daren (lead), Cardiganshire	32 1/2	31 1/2	31 1/2	31 1/2	31 1/2
128	East Pool (tin), Pool, Illogan	24 1/2	23 1/2	23 1/2	23 1/2	23 1/2
1024	East Wheel Margaret (tin), Pool	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
5760	Exmouth (silver-lead)	41 1/2	40 1/2	40 1/2	40 1/2	40 1/2
1600	Fay Mining Company (lead), Derbyshire	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
4940	Fowey Conso (copper), Tywardreath	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
4448	General Mining Co. for Ireland (cop., lead)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
2500	Goginan (silver-lead), Cardiganshire	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
1024	Gonnamore (copper), St. Cleer	13 1/2	12 1/2	12 1/2	12 1/2	12 1/2
243	Grambler and St. Aubyn (copper)	109 1/2	108 1/2	108 1/2	108 1/2	108 1/2
6000	Great South Tolgus (S.E.)	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
2000	Great Wheel Vor (tin), Helston (S.E.)	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
119	Great Work (tin), Gernoe	100 1/2	99 1/2	99 1/2	99 1/2	99 1/2
1024	Herodfoot (lead), near Liskeard	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
6000	Hingston Down Conso (copper), Calstock	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
1000	Holyford (copper), near Tipperary	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
2500	Isle of Man (Limited)	25 1/2	24 1/2	24 1/2	24 1/2	24 1/2
76	Jamaica (lead), Mold, Flintshire	31 1/2	30 1/2	30 1/2	30 1/2	30 1/2
200	Laxey Mining Company, Isle of Man	100 1/2	99 1/2	99 1/2	99 1/2	99 1/2
160	Levant (copper), tin, St. Just	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
4000	Lewis Mines (tin), St. Erth	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
400	Lisburne (tin), Cardiganshire, Wales	120 1/2	119 1/2	119 1/2	119 1/2	119 1/2
6000	Marke Valley (copper), Cardigan	41 1/2	40 1/2	40 1/2	40 1/2	40 1/2
5000	Mendip Hills (lead), Somerset	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
8000	Merrilyn (lead), Flint	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
20000	Mining Co. of Ireland (copper, lead, coal)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
5000	Nantow and Penrhyn, Limited (3 1/2 shares)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
7500	Nantlle Vale (lead), Llanfyllin	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
6400	North Heath, Westmoreland	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
470	Newtowns Mining Company, Co. Down	50 1/2	49 1/2	49 1/2	49 1/2	49 1/2
200	North Pool (copper), tin, Pool	22 1/2	21 1/2	21 1/2	21 1/2	21 1/2
140	North Rosker (copper), tin, Pool	110 1/2	109 1/2	109 1/2	109 1/2	109 1/2
6000	North Wheel Basset (cop., tin), Illogan (S.E.)	16 1/2	15 1/2	15 1/2	15 1/2	15 1/2
8400	Par Conso (copper), St. Blazey (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
500	Peak United (copper), North Derbyshire	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
400	Phonix (copper), tin, Bodmin	10 1/2	9 1/2	9 1/2	9 1/2	9 1/2
1000	Pulberron (tin), St. Agnes (Preferential)	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
500	Providence Mines (tin), Uye Lantel	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
2500	Rhoswyl and Bacheidion (lead)	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
512	Rosewarne United (copper), tin, Gwinnar	12 1/2	11 1/2	11 1/2	11 1/2	11 1/2
12000	Sorridge Conso (cop.), Whitechurch (S.E.)	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
250	South Cardon (copper), St. Cleer (S.E.)	32 1/2	31 1/2	31 1/2	31 1/2	31 1/2
128	South Crinnis (copper), St. Austell	28 1/2	27 1/2	27 1/2	27 1/2	27 1/2
250	South Tolgus (copper), Redruth, Cornwall	16 1/2	15 1/2	15 1/2	15 1/2	15 1/2
494	South Wheel Frances, Illogan (S.E.)	18 1/2	17 1/2	17 1/2	17 1/2	17 1/2
1024	Spears Conso (tin), St. Just, Cornwall	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
200	Spargon (copper), St. Just	22 1/2	21 1/2	21 1/2	21 1/2	21 1/2
579	St. Aubyn and Gwinnar (tin), Illogan (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
2000	St. Day United (tin and copper)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
94	St. Ives Conso (tin), St. Ives	80 1/2	79 1/2	79 1/2	79 1/2	79 1/2
9600	Tamar Conso (sil.-lead), Beralston (S.E.)	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
2000	Tinroft (copper), tin, Pool, Illogan (S.E.)	9 1/2	9 1/2	9 1/2	9 1/2	9 1/2
2048	Trehan (silver-lead), Menheniot	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
572	Trehan Conso (tin), St. Ives	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
96	Trevelyan (copper), Gwennap, Cornwall	65 1/2	64 1/2	64 1/2	64 1/2	64 1/2
120	Trevelyan (copper), Gwennap, Cornwall	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
400	Trevelyan (copper), Gwennap, Cornwall	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
100	Trumpet Conso (tin), near Helston	95 1/2	94 1/2	94 1/2	94 1/2	94 1/2
400	United Mines (copper), Gwennap (S.E.)	40 1/2	39 1/2	39 1/2	39 1/2	39 1/2
20000	Vale of Towy (lead), Carmarthen (S.E.)	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
16500	Welsh Pottery (silver-lead), Talyllyn, Card.	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
2000	Wendron Conso (tin), Wendron	23 1/2	22 1/2	22 1/2	22 1/2	22 1/2
512	West Basset (copper), Illogan (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
250	West Cardon (copper), Liskeard (S.E.)	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
1024	West Damoel (copper), Gwennap	110 1/2	109 1/2	109 1/2	109 1/2	109 1/2
128	West Providence (tin), St. Erth	13 1/2	12 1/2	12 1/2	12 1/2	12 1/2
400	West Wheel Seton (copper), Camborne	38 1/2	37 1/2	37 1/2	37 1/2	37 1/2
1228	Wheel Arthur (copper), Calstock	6 1/2	6 1/2	6 1/2	6 1/2	6 1/2
240	Wheel Bal (tin), St. Just	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
512	Wheel Basset (copper), Illogan (S.E.)	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
250	Wheel Buller (copper), Redruth (S.E.)	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
1024	Wheel Charlotte, Perranruth	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
250	Wheel Clifford (copper), Gwennap	450 1/2	440 1/2	440 1/2	440 1/2	440 1/2
5000	Wheel Fortescue, Bodmin	50 1/2	49 1/2	49 1/2	49 1/2	49 1/2
128	Wheel Friesche (copper), Devon	50 1/2	49 1/2	49 1/2	49 1/2	49 1/2
1024	Wheel Hail (copper), tin, Illogan	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
5000	Wheel Kitty (tin), Uye Lantel (S.E.)	21 1/2	20 1/2	20 1/2	20 1/2	20 1/2
430	Wheel Lovell (tin), Wendron	35 1/2	34 1/2	34 1/2	34 1/2	34 1/2
448	Wheel Margaret (tin), Uye Lantel	19 1/2	18 1/2	18 1/2	18 1/2	18 1/2
1024	Wheel Mary Ann (lead), Menheniot (S.E.)	8 1/2	8 1/2	8 1/2	8 1/2	8 1/2
40	Wheel Oweles, St. Just, Cornwall	300 1/2	290 1/2	290 1/2	290 1/2	290 1/2
210	Wheel Reed (tin), Uye Lantel	31 1/2	30 1/2	30 1/2	30 1/2	30 1/2
198	Wheel Seton (copper), Camborne	107 1/2	106 1/2	106 1/2	106 1/2	106 1/2
1040	Wheel Trevelyan (sil.-lead), Liskeard (S.E.)	10 1/2	9 1/2	9 1/2	9 1/2	9 1/2
1024	Wheel Trevelyan (tin), Gwinnar	40 1/2	39 1/2	39 1/2	39 1/2	39 1/2
4000	Wheel Wrey (lead), St. Ives	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
5000	Wicklow (copper), Wicklow	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2

[* Dividends paid every two months. + Dividends paid every three months.]

FOREIGN MINES.

Shares.	Miner.	Paid.	Last Price.	Present.	Dividends Paid.	Last Paid.
5000	Alten Mining Company (copper), Norway	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
10000	Barracon Imperial (gold), Brazil (S.E.)	25 1/2	24 1/2	24 1/2	24 1/2	24 1/2
2464	Burra Burra (copper), South Australia	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
12000	Cobre Copper Company (cop.), Cuba (S.E.)	40 1/2	39 1/2	39 1/2	39 1/2	39 1/2
10000	Copio Mining Company, Chile (S.E.)	16 1/2	15 1/2	15 1/2	15 1/2	15 1/2
30000	General Mining Assoc., Nova Scotia (S.E.)	30 1/2	29 1/2	29 1/2	29 1/2	29 1/2
15000	Linares (lead), Pozo Ancho, Spain (S.E.)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
10000	Lustanion (of Portugal) (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
13815	Marquitta and New Granada (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
25000	Peninsular Mining Company (Limited)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
10000	Pontgibaud (silver-lead), France (S.E.)	20 1/2	19 1/2	19 1/2	19 1/2	19 1/2
7000	Royal Santiago (copper), Cuba (S.E.)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
104000	San Fernando (silver-lead), Linares	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
43174	United Mexican (silver), Mexico (S.E.)	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
30000	Mexican and So. Amer. Smelting Co. (S.E.)	10 1/2	9 1/2	9 1/2	9 1/2	9 1/2
8979	North British Australasian (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2

NON-DIVIDEND FOREIGN MINES.

Shares.	Miner.	Paid.	Last Price.	Present.	Dividends Paid.	Last Paid.
20000	Australasian (S.E.)	7 1/2	7 1/2	7 1/2	7 1/2	7 1/2
60000	Chancellorville Freehold	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
80000	Clarendon Conso (S.E.)	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
50400	Cologne Mining Company	21 1/2	20 1/2	20 1/2	20 1/2	20 1/2
80000	Copper Mines of Eng. (S.E.)	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
12000	Ditto, Freehold, 7 1/2 per cent. (S.E.)	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
25000	Fortuna	27 1/2	26 1/2	26 1/2	26 1/2	26 1/2
20000	Iberian, Limited (sil.-lead), Spain	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
25000	Liberty, Virginia	1 1/2	1 1/2	1 1/2	1 1/2	1 1/2
2309	Kinsigthal Min. Ass., Germany	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2

PROGRESSIVE MINES.

Shares.	Miner.	Paid.	Last Price.	Present.	Dividends Paid.	Last Paid.
4000	Abby Consols (lead), Cardigan.	12s.	1 1/2	1 1/2	1 1/2	1 1/2
10000	Arundell (cop.), near Ashburton	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
800	Balloon Con. (tin), Uye Lantel	4 1/2	4 1/2	4 1/2	4 1/2	4 1/2
4000	Ballyvirgin, Co. Clare	22 1/2	21 1/2	21 1/2	21 1/2	21 1/2
6000	Basset Grass United (cop.), Kea	15 1/2	14 1/2	14 1/2	14 1/2	14 1/2
4000	Bedford Consols (copper)	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.
2300	Berrow (Limited)	1	1	1	1	1
250	Bendish Consols	11 1/2	10 1/2	10 1/2	10 1/2	10 1/2
5300	Boiling Well (cop.), Gwithian	3	2	2 1/2	2 1/2	2 1/2
8000	Bolenowe (copper)	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
1120	Bridford Consols	13 1/2	12 1/2	12 1/2	12 1/2	12 1/2
4000	Brown Wood, Bafra Leigh	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
2050	Cryn-Pedw (lead)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
6000	Buckland Consols (copper)	3 1/2	3 1/2	3 1/2	3 1/2	3 1/2
4000	Buller and Basset United	13 1/2	12 1/2	12 1/2	12 1/2	12 1/2
1200	Buller and Bertha (copper)	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
812	Buttorden (silver-lead)	16 1/2	15 1/2	15 1/2	15 1/2	15 1/2
5000	Cae-Cynon, Cardiganshire	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.
800	Calcut Hall (lead), Limited	10	10	10	10	10
4000	Calstock Consols (copper)	5 1/2	5 1/2	5 1/2	5 1/2	5 1/2
2115	Calstock United (tin and cop.)	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
1200	Camborne Consols	17 1/2	17 1/2	17 1/2	17 1/2	17 1/2
4000	Carbarn Vean & Co.	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
1024	Cardiganshire, St. Cleer	11	11	11	11	11
18	Cargoll (silver-lead), Newlyn	12 1/2	12 1/2	12 1/2	12 1/2	12 1/2
8800	Carmanston United (lead)	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
4000	Carnewas (lead, cop.), Mawgan	1	1	1	1	1
7900	Carraek Dewa United, St. Ives	2	2	2	2	2
1055	Carvannell (copper), Gwennap	11	11	11	11	11
7400	Cartell, Co. St. Austell	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
6000	Cathell, Co. St. Austell	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
12900	Catherine and Jane Consols	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.	10s. 6d.
6000	Cefn Gwyn (sil.-ld.), Cardigan.	1	1	1	1	1
6000	Chollart Consols (copper)	1s.	1s.	1s.	1s.	1s.
1024	Clijah & Wentworth (tin, cop.)	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2
5900	Cloance Wood, Crowan	8s.	8s.	8s.	8s.	8s.
3400	Coed Mawr Pool (ld.), Llanrwst	5	5	5	5	5
2450	Cook's Kitchen, Illogan	15 1/2	15 1/2	15 1/2	15 1/2	15 1/2
1055	Craig Hill (copper), Llanrhon	3s. 10d.	3s. 10d.	3s. 10d.	3s. 10d.	3s. 10d.
1055	Crickdoe Moor (copper), St. Cleer	8	8	8	8	8
1000	Cwm Erfin (lead), Cidigansh.	1	1	1	1	1
6000	Cwm Rebon (Limited)	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
6000	Dale Mine (lead), N. Stafford.	1	1	1	1	1
2400	Dalhrieh (cop. & ld.), Rhayader	2 1/2	2 1/2	2 1/2	2 1/2	2 1/2
1000	Daren (sil.-lead), Cardiganshire	6	6	6	6	6
4000	Devon & Cornwall United (cop.)	14 1/2	14 1/2	14 1/2	14 1/2	14 1/2
800	Devon and Courtenay (copper)	16s.	16s.	16s.	16s.	16s.
6000	Devon Bunt (copper)	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
4506	Devon Wheal, Bude	1	1	1	1	1
4315	Duke of Cornwall, Llanwithel	16 1/2	16 1/2	16 1/2	16 1/2	16 1/2
3000	Dynafryn (lead), Wales	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2
25	Eaglesbrook, Llanphange, Card.	40	40	40	40	40
4095	St. Alfred Consols	11 1/2	11 1/2	11 1/2	11 1/2	11 1/2